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A National Newspaper for Every Branch of the Industry

Automotive Daily News

CARS · SHOP EQUIPMENT · TRUCKS · AVIATION · PARTS · ACCESSORIES · TIRES

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PUBLIC LIBRARY
MAR 5 1932
DETROIT

January Commercial Car Sales in 36 States Show 42% Decline From Last Year

Several Individual Lines Make Worth While Gains Despite General Decline of Combined Sales

New York, March 3.—R. L. Polk & Co. have now released sales figures on commercial vehicles for January covering thirty-six states. The total for the first month of the present year in these thirty-six commonwealths is 9,952, which compares with 17,282 in the same territory in January, 1931. The decrease works out at somewhat over 42 per cent. under the total for last year.

It may be noted that sales returns for January are coming rather slowly. This is a normal condition for the first month of the year, when the various motor vehicle departments are clogged with the rush of registrations and other matters incidental to beginning a new year.

In spite of the drastic decrease this January under last, some companies managed to make very good showings. General Motors has registered an increase to 306 units sold as against 303 last year. La France Republic sold 35 units, as against 17 a year ago. Pierce-Arrow shows 10 units, against none, and Reo makes an impressive showing with 233 units, as compared with 174 last year in the same territory. Diamond-T deserves honorable mention, having sold 133 units this year, against 154 in January, 1931.

M. E. W. A. ORGANIZES REGIONAL GROUP IN OHIO VALLEY

Chicago, March 3.—Returning to national headquarters here, B. W. Ruark, general manager of the Motor and Equipment Wholesalers Association, today made known details of the formation of the Ohio Valley Automotive Jobbers Association. Along with President E. T. Satchell of the national association, Mr. Ruark was present at the organization of the Ohio Valley group, thirteenth of the regional groups to be formed thus far in the nation-wide program of the association. The organization meeting was held at Columbus, O., February 27.

Territory of the Ohio Valley jobber group embraces western Pennsylvania, Ohio and West Virginia, with nineteen wholesalers forming the nucleus of membership.

Elton S. Seager, Pennsylvania Rubber and Supply Company, Cleveland, was elected president of the Ohio Valley Association. Mr. Seager, a former director of the Motor and Equipment Association, is treasurer of the Motor and Equipment Wholesalers' Association. Other officers chosen include H. G. Root, Automotive Parts Company of Ohio, Springfield, and H. M. Dine, Dine-De Weese Company, Canton, O., vice-presidents; Curt Sohl, Griswold-Sohl Company, Columbus, O., secretary; W. D. Baldwin, Baldwin Supply Company, Charleston, W. Va., treasurer.

Directors elected in addition to the officers were C. W. Vey, Pittsburgh Auto Equipment Company, Pitttsburgh, and Jack Dorman, Dorman Automotive Supply Company, Cincinnati.

In their talks to members at the meeting, at which Mr. Seager pre-

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GLASS-STEAGALL BILL DOES NOT AID MOTOR FINANCE COMPANIES

Chicago, March 3.—The Glass-Steagall bill which has been passed by Congress and approved by the President is no substitute for the privilege of rediscounting finance company notes at Federal Reserve banks and will not deter those companies from continuing their present campaign to make such paper eligible for rediscount, according to Milan V. Ayres, analyst of the National Association of Finance Companies.

Discussing the Glass-Steagall bill, Mr. Ayres stated that it "will provide relief for some distressed banks, and for the first time makes it possible to use finance company notes as collateral for reserve bank loans."

"Its provisions, however, are so hedged about with restrictions as to make them practically available only under distress conditions and not always then," continued Mr. Ayres. "No measure now before Congress would do as much to relieve the banks and promote the recovery of business as would a simple amendment of the Federal Reserve act providing that the notes of finance companies shall be eligible for rediscount at the Federal Reserve banks.

"In finance company notes the banks of the country now possess nearly a billion dollars of safe and

(Continued on Page 2)

ILLINOIS ALLOTS $40,000,000 FOR 1932 STATE ROADS

Chicago, March 3.—Out of $75,880,000 to be expended in 1932 from the Illinois highway funds, approximately $40,000,000 will go to the state's road construction program, according to present plans as made known by H. H. Cleaveland, director of the Department of Public Works and Buildings.

The expenditures will include such items as the construction of state highways, paving, repairing and resurfacing of state and city roadways, policing of state highways, administration of the motor fuel tax acts, refunds to counties and allotments to counties of their share of gas tax fees.

The apportionment of expenditures as outlined by Mr. Cleaveland will be about $28,000,000 downstate and $12,000,000 for the Chicago area. The estimate calls for approximately 1,000 miles of paving during 1932.

Key City February Sales Reports Show Bright Spots in 2 Centers

Wayne County, Mich., and Ramsey County, Minn., Make Good Showings, Though First Two Months Are Under 1931

New York, March 3.—Some bright spots are beginning to appear in sales returns from various key cities, as may be noted in this newspaper's regular monthly survey, this time covering February, 1932.

Detroit notes a pick-up in passenger car sales for Wayne County for February over January. In February, 1932, there were sold 2,555 passenger cars, as against 2,027 in January of this year. Sales in February, 1931, totaled 3,981 units. Commercial vehicle sales were 205 in February, comparing with 222 in January and 273 in February of last year.

February sales in Ramsey County, Minn., of which the city of St. Paul is the greater part, made an excellent showing even in comparison with those of the same month last year, according to the St. Paul Automobile Dealers, Inc. In February, 1932, passenger car sales totaled 335 and truck sales 71. In February, 1931, passenger car sales were 363 and trucks 39. Combined sales of cars and trucks in February this year was 406 units, against 402 last year. For the first two months of 1932 passenger car sales totaled 652 units and trucks 156, compared with 680 passengar cars and 85 trucks last year. The grand total for the two months this year is 808 vehicle units against 765 for the same period of 1931. This is a very good showing. Minnesota dealers have a right to feel that they have

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ECONOMIC FOLLY SEEN IN PLAN FOR BIG TRUCK LEVIES

New York, March 3.—Failure of any attempt to supplement the revenues of New York state through excessive taxation of commercial vehicle owners was predicted today by a spokesman for the Automobile Merchants Association of New York, Inc.

"Any measure which might be enacted in line with the Assembly's present plan to extract $12,000,000 of additional revenue from the truck owners of this state would inevitably result in repercussions, disastrous to the industry and commerce of the state," declared George Stowe, chaiman of the association's legislative committee.

"Through the registration fees and the increased gasoline taxes which they are paying, truck users of New York are contributing their full share to the cost of government. To expect them to do more would be sheer economic folly," Mr. Stowe asserted.

The present motor vehicle taxation schedule, he related, is calculated on a basis that would compel highway users to contribute more than $89,800,000 in taxes during the present year, or one out of every four dollars of the state's budget.

"To raise $12,000,000 additional by taxation of motor trucks as has been suggested, would impose a levy which would not only be discriminatory but would rapidly pass the

(Continued on Page 4)

TRUCK SALES MAKE BETTER SHOWING IN SOUTHERN STATES

New York, March 3.—With one state, Virginia, showing a gain over a year ago, new commercial car registrations in the South in January made a better showing in relation to January, 1931, than the country as a whole, according to the complete returns from eight representative states in that section of the country as published by the Automotive Daily News.

Virginia reported registrations of 398 new commercial cars in January, as against 352 in the like period of last year, an upturn of 13 per cent.

Encouragement was found in the report from Mississippi, where sales have shown very sharp declines in recent months. This state reported 103 for January, as against 116 a year ago, a drop of only 11 per cent.

The eight states reported aggregate registrations of 2,443, as against 3,929 in January of last year, a falling off of 37 per cent. This compares with an indicated decline of 43 per cent. in January for the country as a whole, on the basis of the returns thus far received.

Alabama reported January registrations of 180, as against 255 a year ago, off 29 per cent. Florida's January total was 428, as against 932 a year ago, a decrease of 53 per cent., the largest drop reported by either of the eight states. Missouri reported 274 for January, as against

(Continued on Page 5)

FURTHER OPPOSITION TO U. S. REGULATION OF MOTOR CARRIERS

Washington, March 3.—Further evidence in opposition to Federal regulation of motor carriers was on record today with the Interstate Commerce Commission, concluding a two-day hearing on the report of Attorney Examiner Leo J. Flynn, which recommended control of the rates and services of this form of transportation.

The argument was directed principally in behalf of trucking interests, a group of witnesses saying it was impracticable and not in public interest to regulate the public carriers.

H. S. Shertz, on behalf of the Interstate Motor Carriers' Association, opposed any immediate regulation of the motor vehicles operating for hire on the ground that neither the Interstate Commerce Commission nor any other body has had sufficient experience with highway operations to administer such regulations. He said, however, motor operators would not be against any reasonable regulation if some practicable plan were found after an intelligent study and investigation "by a sympathetic body."

He said the railroads overemphasize the extent to which motor carriers have cut into their business.

John S. Burchmore of the National Industrial Traffic League declared the public is entitled to the most economical transportation it can obtain by all means and agencies, and no legislation should be attempted which would stifle any form of legitimate transportation.

ILLINOIS TRUCK SALES 47.4% UNDER FEB. '31; THREE MAKES GAIN

Chicago, March 3. — With three companies showing gains in commercial car sales in Illinois and two companies holding their own as compared with February, 1931, the combined list showed a decline for the month of 681 units, or 47.4 per cent., from the February figures a year ago.

Comparative registrations for the state of Illinois are 758 for February, 1932, as against 1,439 for February, 1931. January sales this year totaled 941 units. Sales for the first two months this year totaled 1,699 units, as compared with 3,444 units in the first two months of 1931.

Diamond T this year sold forty-one units, as compared with thirty-six last February. Federal showed a 100 per cent. gain for the month over the same month last year, with the figures, eighteen units in 1932, as against nine units in 1931. General

(Continued on Page 2)

AUTOMOTIVE DEMAND SPURS CHICAGO STEEL AND LUMBER TRADE

Chicago, March 3.—Although the demand for lumber from automobile sources has not come up to expectations thus far this year, a noticeable pickup in that direction is being noted, according to reports in lumber circles here. Generally speaking, orders are running well ahead of the low levels of production.

The local market has experienced a brisker demand, especially for Western pine lumber, the call coming in large measure from automobile shippers requiring export crating.

One of the leading lumber sellers reports that business in February was thirty cars ahead of January and that orders are coming in at a greater rate than at any time since last September. It is freely admitted that the more cheerful outlook for the immediate future in the lumber trade is due to the prospects for improvement in the automobile industry.

The steel industry is another to report more activity in this territory from automobile companies, with the demand for bars leading in the finished steel group. Leaders in this industry expect the appearance of the new Fords to mark a definite and steady upturn in motor car sales for automobile manufacturers and dealers in general. They appreciate that the manufacturers will gauge their outputs by the demand, and look for the demand to force a speeding up of production.

AUTOMOBILE SERVICE STATION GOES ABROAD

Washington, March 3.—The extent to which the modern automobile service and filling station, equipped with the latest American service appliances, has widened its domicile from Main Street in America to the far corners of the world, is shown in a world survey of foreign automotive equipment markets, just concluded by the Automotive Division, Department of Commerce.

Information for this study, received from 114 different countries, reveals that in some of the most remote parts of the world, whose inhabitants a few years ago viewed with alarm their first sight of an automobile, are now found facilities to provide service for the growing number of those inhabitants who have been converted to the use of the motor vehicle.

The modern gasoline pump, the valve grinder, the grease gun and their mechanical associates have become familiar sights in many distant lands and are entitled to recognition as world travelers of note.

The American motorist can usually find a service station around almost any corner to provide relief for his motoring distress. Until fairly recently, however, the purchaser of a car or truck in many parts of the world was less fortunate. Even today—when more than 9,000,000 automobiles are in use abroad—service facilities are inadequate in many foreign spots, but the extent to which this imperative need has been remedied recently is amazing.

In the shadow of the Himalayas and the Andes, in tropical Tahiti, Samoa or Bali, in barren Iceland, in the heart of Africa, on the desert of Australia have been erected stations to repair, equip and service the automobiles which operate in these regions where service has an almost incalculable value.

Recently a branch of a great American corporation has completed the construction of a number of the most modern service stations in numerous foreign countries where they will educate native automobilists in the proper care of the motor vehicle.

This journey of the service station to the far corners of the world has a practical dollar and cents value to American business.

FAIR WEATHER AIDS MIDDLE WEST SALES

St. Louis, March 3.—Fair weather in the Middle West has had a decided effect upon automobile sales, according to J. S. Mitchell, vice-president and general manager of E. J. Johnson, Inc., distributor of Auburn-Cord in this city, as well as Denver, Col., and Kansas City, Mo.

The buying public, which contemplated the purchase of new automobiles in the early summer, is now taking deliveries of the new cars because of the fair and warmer weather.

Truck and Bus Issue—Mar. 18

In addition to up-to-the-minute specifications with prices, the issue will contain latest registration figures by states and makes, in addition to news and articles of interest to every truck dealer and fleet owner who will receive the issue.

No added charge for extra distribution.

Automotive Daily News
350 Hudson Street, N. Y

TORONTO SHOW PICKED AS NATIONAL EXHIBIT OF CANADIAN MAKERS

Toronto, Canada, March 3 (UTPS).—It now is announced that the National Motor Show of Canada, to be held in the million-dollar Automobile Building at the Canadian National Exhibition grounds, this city, March 5 to 12, inclusive, will be repeated year after year, as the official and complete showing of new models by the automotive industry of the dominion. This is the statement made by D. R. Grossman, president of the Canadian Automobile Chamber of Commerce, which is sponsoring the National Motor Show.

Mr. Grossman also is the vice-president and general manager of the Studebaker Corporation of Canada, Ltd. He points out "that not only is Toronto the most centrally located of the large cities of the dominion, but it also is the capital of the central province which includes practically all the automotive manufacturing plants of the dominion, and provides this industry with almost half of its entire domestic market."

DES MOINES, IA., SHOW ATTRACTS 68,000; GAIN OF 14% OVER LAST YEAR

Des Moines, Ia., March 3.—Attendance of 68,000 at the twenty-third annual automobile show in the Coliseum was 14 per cent. greater than last year, and the show, according to Dean Schooler and C. G. Van Vliet, managers, was most successful in every detail.

No check was made upon sales from the floor, but unofficial figures indicated nearly ninety contracts, representing $75,000, were closed. Forty-two of the machines shown will be delivered immediately.

One dealer reported his show week sales were larger than any two months during the past year and another sold every car he had on display.

CHICAGO BOOSTERS HOLD RECORD LUNCHEON MEETING

Chicago, March 3.—Over 100 automotive jobbers, boosters and their friends were present at the first of a series of weekly Monday luncheons to be held by the Chicago Automotive Booster Club at the Auditorium Hotel.

President J. N. La Belle had appointed R. M. (Dick) Sheridan chairman of the initial meeting and he secured as the guest speaker Dr. Allen Diehl Albert, assistant to the president of "A Century of Progress." Dr. Albert gave every one in attendance a thrilling word picture of the history, the progress made, and what is to be expected of the World's Fair which is to be held in Chicago in 1933.

This Chicago booster luncheon was the largest luncheon ever held by any of the Middle Western booster clubs, it was claimed, and was attended in a body by the sales managers of the jobbing members of the Research and Super Service clubs, who were holding a series of meetings in Chicago.

FORD'S NORFOLK, VA., PLANT SET TO START

Richmond, Va., March 3 (UTPS).—The Norfolk, Va., assembly plant of the Ford Motor Company is "all set" to begin the manufacture of the new model automobile announced by Mr. Ford, and awaits only orders from Detroit to proceed with production, Norfolk officials have announced.

Approximately 500 men are employed at present at the Norfolk plant, although the normal force is 1,900, it was said. The present force has been busy during the past few weeks assembling bodies for the new cars.

No orders for the resumption of production at Norfolk had been received from the general offices of the Ford Motor Company, it was said, but in view of the recent announcement by Mr. Ford that production probably will start early this week, it was held likely that such an order would be received shortly.

GLASS-STEAGALL BILL DOES NOT AID MOTOR FINANCE COMPANIES

(Continued from Page 1)

exceptionally liquid commercial paper. If made eligible for rediscount, it would serve not merely to relieve a few distressed banks but also to increase the effective reserves of a great number of banks to such an extent that they would be much more ready to advance funds for the requirements of business.

"This would help restore public confidence in the banks to a marked extent and bring back to them large amounts of hoarded money. It would also reduce the interest rate which finance companies will have to pay for money to finance the increased installment sales which must accompany returning prosperity. This saving will be passed on to the public in the shape of lower financing charges. Consumer credit is at least as essential as commercial credit for restarting the wheels of industry."

ILLINOIS TRUCK SALES 47.4% UNDER FEB. '31; THREE MAKES GAIN

(Continued from Page 1)

Motors Truck more than doubled its sales in February this year, as compared with February, 1931, the figures being fifty this year against twenty-three last year. La France-Republic held its own, selling one truck in February this year as against one last year. Sterling also matched last February's mark, with two units sold in each period.

Ford's inactivity was a big factor in the sales decline, with 154 units February this year, as compared with 646 units the same month last year. The February decline, however, was less pronounced than the declines in January this year from January, 1931.

PLANS COMPLETED FOR CANADIAN SHOW DINNER

Toronto, March 3.—Plans are complete now for the national motor show dinner, which will be held on Tuesday next at the Royal York Hotel, here, by the Canadian section of the Society of Automotive Engineers and the Canadian Automobile Chamber of Commerce.

This event will be one of the outstanding features of automobile show week in Toronto, and a distinguished list of guests is expected to be in attendance. It is expected that Alfred Reeves, vice-president and general manager of the N. A. C. C., will be among those present.

GIRDLER SEES INCREASE IN DEMAND FOR STEEL

Youngstown, O., March 3.—Definite indications of the trend of the steel industry for 1932 are lacking, T. M. Girdler chairman of the board of Republic Steel Corporation, told stockholders. "Further decline in prices is improbable," he said, "and increases are not unlikely. Stocks of material in the hands of manufacturers and consumers are inadequate for the conduct of business at an average rate. Use or consumption of steel products has been in excess of production for a considerable period, and necessity for additional production is approaching."

CANADIAN LINK BELT TO ADD NEW LINES

Toronto, Canada, March 3.—Arrangements have been completed by Link Belt, Ltd., in this city for the manufacture in Canada of asphalt equipment of the F. D. Cummer & Son Company of Cleveland, O. The Cummer line of products, which will be known in Canada as the Link-Belt Cummer Asphalt Plants and Equipment, consist of a wide range of products used by makers and layers of asphalt.

TO HANDLE REO LINE

Bridgeport, Conn., March 3.—The Morrissey Company, 653 Fairfield Ave., has been given the dealership for Reo passenger cars, speedwagons and trucks. Thomas Morrissey and Charles J. Haynes head the concern, which has handled De Soto and Plymouth for some time.

SPARKS from DETROIT

* * *

D. S. Eddins

* * *

Campbell to Hunt Treasure

* * *

Racing Gossip

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Chris Sinsabaugh—Detroit Editor

EVEN as a youngster, D. S. Eddins, the new president of the Olds Motor Works, was automobile-minded. In those days, when the industry was aborning, young Eddins was a clerk for a Texas railroad, working in the little town of Mart, in the Lone Star state. He got ambitious to enter the selling field, and, reading a Pope-Hartford advertisement, he wrote the company to learn how to get into the business. In those days we did not have the present-day dealerships. Most any one could get the right to sell automobiles. And so it proved in Eddins' case.

Back came a letter and a catalogue, and Eddins was empowered to try to sell Pope-Hartfords. There wasn't much in sight in Mart, but finally Eddins located a prospect, or what he thought should be a prospect—a livery stable owner in a town some ten miles away.

* * *

THE LIVERY STABLE KEEPER was skeptical. "Why should I buy an automobile when I have a stable full of horses?" he asked Eddins, who at once became eloquent, pointing out that a motor car would be a great advertisement for the livery stable business. The prospect fell for this argument, and Eddins sold his first automobile, a Pope-Hartford. And he still was a railroad clerk.

When the car came from the factory, Eddins and three friends undertook to deliver it. It took them all day to get the car the ten miles to the livery stable owner's town. Adventures galore, one of which included trouble with a farmer whose horses were scared of the automobile and ran away. There were several girls with the farmer, and there would have been a fight if Eddins hadn't had his three friends with him.

Arrived at the destination, the new owner wondered at the grimy hands of the four deliverers, but this was explained away. Eddins said they had stopped to go over the car thoroughly to be satisfied that it was in shape for delivery.

* * *

EDDINS' FATHER was a banker at Waco, and coaxed his son to quit railroading and become a banker. But the automobile bug was still biting, and young Eddins determined on going into the automobile business. First, he fortified himself by taking a mechanical course; then he became a salesman. This was in 1908. Since then he has been going up and up—as a Buick dealer in Waco, in the Studebaker branch at Dallas, a Maxwell distributor in Denver, with Chevrolet in Denver and then assistant general sales manager of Chevrolet under R. H. Grant. He joined Oldsmobile in 1925.

* * *

MALCOLM CAMPBELL has stirred up interest in racing, and Detroit is looking ahead to the next Indianapolis sweepstakes. Campbell himself is reported to be headed for his big adventure. He, it is said, is about to join a treasure hunt in the Pacific. Friends of his have induced him to join up, and Campbell soon will be headed for a mysterious island where great riches may await him.

* * *

INDIANAPOLIS RACE gossip has started with reports from the big Speedway that there is every reason to believe that the semi-stock division of the race will be larger than last year. This means that the manufacturers are evidently coming back into the racing game.

Hupmobile already has come out into the open and declared that there will be a Hupmobile in the race, to be driven by Russell Snowberger. It is thought there will be several other manufacturers who also will race under their own name plates.

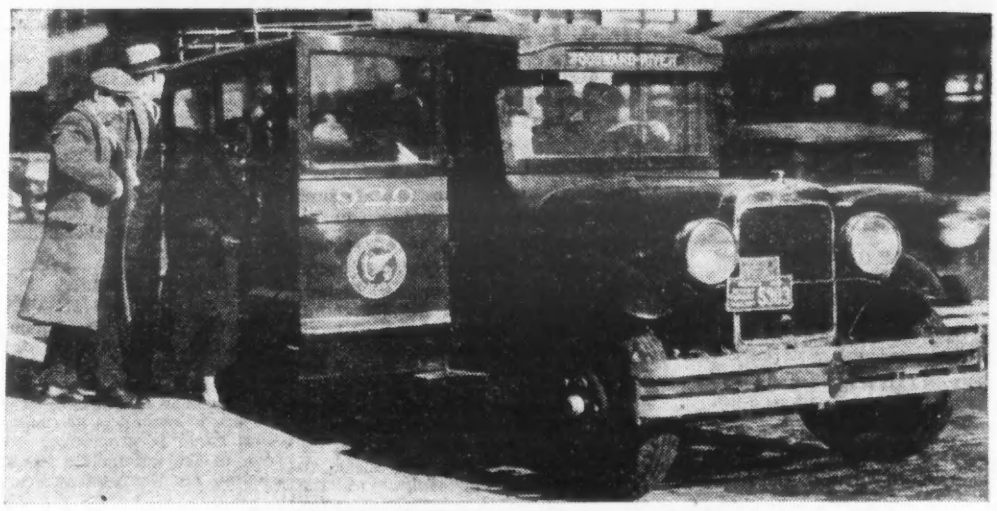
Undoubtedly there will be others who will do as they did last year—put in cars that are practically factory built, but which will be raced as the Soandso Special. Be that as it may, this insures competition that undoubtedly is practical, for, after all, the Speedway is the laboratory which tests out many ideas which later on become stock with the industry.

'Flying Red Buses' Make Transportation History

Detroit Fleet Carries 17,312,912 Passengers and Has Traveled 11,860,993 Miles Without a Single Fatality

In three years and four months of day and night operation, Detroit's famous "flying red buses" have made passenger transportation history.

Figures just taken from the operating and revenue sheets of the city of Detroit Department of Street Railways reveal that this fleet of Dodge de luxe buses has carried a total of 17,312,912 passengers and rolled up an accumulation of 11,860,993 miles without a single fatal accident.



ONE of the Dodge buses in Detroit city service

The first buses delivered to the Department of Street Railways by Thomas J. Doyle, Inc., Dodge dealer in Detroit, were put in operation on Thanksgiving Day, November 25, 1928, on Woodward, Jefferson and Mack Avenues. The impressive figures given above cover operations to February 13, 1932.

This de luxe transportation service, as far as can be learned, operates on the fastest city bus schedule in the world. In the fleet are 120 de luxe fifteen-passenger Dodge parlor coaches. The red buses are routed over the most congested streets, and required to keep to schedules in all kinds of weather. They have kept going under all conditions, over icy pavements, through rain, snow, fog hail and sleet. Detroiters depend on the red buses like New Yorkers depend on the subway express trains. The service has been popular since the day it was started.

All Detroit is proud of the red buses. A visit to the Motor Capital is not complete without a ride in one. They whisk business men to their offices and appointments at taxicab speed. Women prefer the red buses to their own private cars for shopping tours. They take children to and from school in record time. Passengers ride with a maximum of comfort. There is no crowding. When all seats are filled the operator displays a "loaded" sign in the windshield and the bus speeds to its destination, threading through traffic under the guidance of its professional operator in a manner the average motorist could not hope to approximate.

Detroit's pride in its red buses is well founded. They are not only fast, comfortable and convenient, but, without causing the death of one person, they have carried an accumulated passenger total exceeding the combined populations of New York, Chicago, Philadelphia, Boston, Detroit, Los Angeles and Kansas City. The total mileage of the fleet is equal to 474 times the circumference of the earth.

The record of Detroit's de luxe buses is construed by passenger transportation authorities as an outstanding example of efficient operation and a tribute to the performance and dependability of the vehicles themselves. Although there are no data to show the average number of stops and starts per trip, it is obvious that the heavy traffic in which the buses operate necessitates almost constant use of brakes and gears. To keep on schedules, especially during peak periods, when travel is heavy and traffic congested, brakes must function quickly and effectively. They must operate easily to prevent driver fatigue. Acceleration also is important. Engines must have the power and ability to get the heavy vehicle and load under way quickly. Commenting on the remarkable record made by the Dodge fleet, the operating manager of the D. S. R. automotive division said: "The buses speak for themselves. After more than three years' operation and an average of about 98,000 miles for each unit, the fact that the buses are still going strong in daily service is pretty good evidence of their quality and dependability."

No other city in the world is known to have a de luxe bus system comparable to the Detroit red buses or one demanding such strenuous service of the vehicles. Pavements on some of the streets over which the buses are routed are extremely rough, subjecting bodies and chassis to terrific shocks and jolts. No matter what conditions are encountered, the red buses must make better time than street cars or ordinary buses.

One of the many interesting phases of this unique transportation operation is that when pavements are the iciest accidents decrease rather than increase. At such times, records disclose, drivers of other vehicles are responsible for two-thirds of the accidents in which the red buses are involved.

Detroit's de luxe bus fleet is maintained mechanically in much the same manner as rolling stock used on the crack limited trains and model street car lines. Each bus undergoes regular inspection every 1,000, 9,000 and 15,000 miles. In addition, each driver reports the exact mechanical condition of his vehicle when he turns it in at the garage at the end of his run. Practically every working part is checked at the weekly or 1,000-mile inspection. Every 9,000 miles the vehicle gets a special chassis inspection and every 15,000 miles a special engine inspection. Thus the buses are kept in good mechanical condition at all times.

Many of the original red bus drivers still are behind the wheel after more than three years. They are regarded as the most proficient drivers of passenger carrying vehicles in the world. Famous race drivers and aviators have remarked frequently that, in their way, the red bus pilots are as skillful and alert as the much publicized aces of the air and race courses.

New Dealers Appointed

COLORADO

Graham-Paige—Roby Auto Company, Denver.

CONNECTICUT

Willys-Overland—Martin B. Dodd, Winsted.

FLORIDA

Willys-Overland — Peake Motor Company, Pensacola.

ILLINOIS

Graham-Paige—John S. Hannion, Inc., Chicago; Loop Motor Sales, Chicago; Harris Finance Corporation, Moline.

Marmon—Berwyn Garage, Berwyn.

Willys - Overland — Templeman Motor Sales, Lyons; Edward J. Hunt Motor Sales, Edwardsville.

KANSAS

Graham-Paige — Clark Peerless Motor Company, Wichita.

Cumulative New Commercial Car Registration Statistics, January, 1932

Returns for today: Kentucky and Wyoming.

In this table 36 states. **Comparative figures for January, 1931, will be found on Page 5.** **Commercial Car figures do not include busses.**

Figures in this table are from R. L. Polk & Co. of Detroit, with the exception of Illinois, which are supplied by the Robinson Advertising Service, Springfield, Ill., and New Jersey, which are furnished by the New Jersey Motor List Co., New Car Division, Trenton, N. J. Metropolitan district figures compiled by Sherlock & Arnold, are included in New York state total. Readers desiring county, city or town lists, or lists of owners in any given section, may obtain these by addressing any of these three companies. Some of this data has been published previously, but it is given here complete for the convenience of our subscribers.

States	Autocar	Brockway-Indiana	Chevrolet	Diamond-T	Dodge	Federal	Ford	G. M. C.	International	La France Republic	Mack	Pierce-Arrow	Reo	Sterling	Stewart	Studebaker	White	Willys-Overland	Miscellaneous	Totals	States
Alabama			79		5	1	54	9	16	3	1		5		1	3	1	1	1	180	Alabama
Arizona			17		3		22		2				1			1			1	47	Arizona
Connecticut	1	2	66	3	10	2	47	6	13				6			1	1	1	3	162	Connecticut
Delaware			11		1		10	1	5				1						1	30	Delaware
Florida		1	169		14	2	189	6	26				10			1	5		5	428	Florida
Idaho			23		1		17	2	5									1	1	50	Idaho
Illinois	2		330	46	54	13	237	33	112	15	1		27	12		6	7	21	25	941	Illinois
Indiana	2	19	191	5	25	3	166	16	53	2	1		16		6	8		9	3	525	Indiana
Iowa			109	12	10		69	9	47		1		8			6		2	8	281	Iowa
Kentucky		3	84	1	6	1	71	3	29		1		5			6	1	4	4	219	Kentucky
Maryland	5	4	69	1	10	1	63	10	21		6		8	1	1		1	1	2	204	Maryland
Michigan			176		26	18	179	13	27	1	5		20			4		3	4	476	Michigan
Minnesota			113	11	14	1	80	7	31		4		6			3	1	1	2	274	Minnesota
Mississippi			59		6		24	3	7							2		2		103	Mississippi
Missouri		1	108	10	7	3	76	8	42	1	2	1	2			2	3	3	5	274	Missouri
Montana			20		2		32	1	18				2			1			3	79	Montana
Nebraska			102	2	10		79	13	46		1		4			3		5	2	267	Nebraska
Nevada			7		1			1	1											10	Nevada
New Hampshire			33	2	5		28	3	7	1	1									80	New Hampshire
New Jersey	4	5	186	24	45	4	206	17	49	2	11		22	1	3	7	15		32	633	New Jersey
New Mexico			51	1	4		42		10				1				2			111	New Mexico
North Carolina			158	1	14		118	14	15	1			1			1	2		4	329	North Carolina
North Dakota			14		4		11	1	21				2			2				55	North Dakota
Ohio	2	2	232	1	26	1	240	19	66	1	2	9	20		4	9	3	12	10	659	Ohio
Oklahoma			95		11		68	10	8				3			1	2	1	1	200	Oklahoma
Oregon			27		8	1	54	5	6					1				1		103	Oregon
Pennsylvania	8	8	315	4	61	2	348	37	98	4	18		30	4	13	8	14	22	62	1056	Pennsylvania
South Carolina			91		5	1	48	1	3							2			2	153	South Carolina
South Dakota			13		5		8	1	8		1		3			1		1	2	43	South Dakota
Texas			336	1	10	3	214	12	78				6			5	8	1	4	678	Texas
Utah			20		2		32	3	10		1		1			1		1		71	Utah
Virginia	2		169		15	1	142	15	26	2	3		7		1	3	5	1	6	398	Virginia
Washington			89	2	6	1	122	9	12				8			10	1	2	13	275	Washington
West Virginia		1	41	1	12	1	46	6	11	1			2			1		1	7	131	West Virginia
Wisconsin			146	5	18		94	11	42	1			6	3		7		6	23	362	Wisconsin
Wyoming			21		4		28	1	7							1	1	1	1	65	Wyoming
Totals	26	46	3770	133	460	60	3264	306	978	35	60	10	233	22	29	106	73	104	237	9952	Totals

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

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To Hoard or Invest

DURING the past year or so there seems to have grown up in the United States an unacknowledged competition in parsimony. Once upon a time it was an American characteristic to try and outdo one's neighbor in indicating one's affluence by dressing well, entertaining lavishly and driving the best possible car.

Nowadays we seem to take pride in wearing threadbare clothes, entertaining as little as possible and driving a car that should long since have been turned out to pasture, so to speak. We are taking positive pride in depression economy.

There are two kinds of economy. One is a commonsense cutting of expenditures to fit income, which is the wise man's way of living always. The other is a parsimony which refuses to spend money even when such spending is a positive investment. This is hoarding.

Nevertheless, the present temper of the country places a premium on hoarding, on refusing to spend money for something that is an investment, something that increases the efficiency of the spender. There is a tendency to sneer at any one who buys a new car or otherwise puts some of his money to work.

We have grown sensitive to public opinion in this regard. Employers hesitate to buy for fear their men who have had wages cut will resent their spending. Workers hesitate to buy for fear their employers will condemn their spending. And so it goes in a vicious circle.

We heard recently of a big business man who was motoring to Florida. This executive had three high-priced cars in his garage, but instead of using one of them, he bought a used car of a very much lower price class and departed for his winter vacation in that. His excuse was that he didn't want any one to think that he was putting on swank. As a matter of fact, he was putting on a false front when he bought a car simply for its effect on people's minds and not to serve a real economic need. In the meantime, his three cars are sitting in his garage piling up interest, insurance and other overhead expenses.

President Hoover has started a drive against hoarding. He wants people to buy whatever they need which their incomes justify. It is a fact that if all Americans did just this thing, bought needed products which their wages or salaries or other incomes justified them in purchasing, the depression would automatically end.

Sees Hope Ahead

ONE of the ablest industrialists in this country is Gen. W. W. Atterbury, president of the Pennsylvania Railroad. Gen. Atterbury is not given to fatuous optimism nor to being stampeded into loose statements.

It was rather comforting, therefore, to hear this industrial leader at the recent meeting of the Transportation Club in New York make this statement: "Recent developments point definitely in the direction of improvement. Industry is probably scraping bottom. A change in the attitude of the American people would work marvels. It might come at any time and from a number of sources; for instance, if the motor industry responds encouragingly to the great plans for renewed production.

"I expect no miracles," Gen. Atterbury continued. "I do believe we are justified in looking for signs of the beginning of a healthy recovery."

At the beginning of our historic depression it was commonly remarked that the basic cause was psychological. There was more than bad psychology at the bottom of the trouble. The economic system of the world was disjointed, and we began to pay for the excesses of the war and the post-war period. However, the time has come when many of the concrete factors making for depression have been righted. Some of our early mistakes have been rectified. Today it is largely the state of mind of the country that is holding back recovery. And there are signs that the American people are beginning to come to their senses.

Trade Association News

A. S. T. M. TO DISCUSS RUBBER USES AT CLEVELAND MARCH 9

Cleveland, O., March 3.—Current developments in the manufacture and utilization of rubber will be discussed by leading engineers and scientists at the regional meeting of the American Society for Testing Materials in the Hotel Cleveland, Wednesday, March 9. Several hundred members of the society and guests are expected to attend the sessions.

Dr. Karl Arnstein, vice-president in charge of engineering, Goodyear-Zeppelin Corporation, builders of the dirigible Akron, will speak on "Lighter-Than-Air Ships" at the dinner at 6.30 o'clock on Wednesday night in the banquet hall of the hotel. Before Dr. Arnstein became affiliated with the Goodyear-Zeppelin Corporation he was a member of the engineering staff of the German Zeppelin Company, Friedrichshafen, Germany, during which time he was in charge of the principal design of about seventy military and commercial airships, including the Los Angeles, which was built in Germany for the United States government.

From Monday to Friday, members of the various committees of the society will convene at the same hotel for technical reports and discussion in various engineering and research fields.

The sessions on Wednesday will be open to interested engineers and technical men, and will deal exclusively with the subject of rubber. In the forenoon session a discussion will be under the heading of "Manufacture of Rubber Products," and in the afternoon, "Properties of Rubber as an Engineering Material."

Dr. F. O. Clements, technical director of the General Motors Corporation Research Laboratories, is president of the Natio: l Society. He will give a short talk at the dinner, at which H. A. Schwartz, manager of research, National Malleable and Steel Castings Company of Cleveland, will be toastmaster. Mr. Schwartz is also at the head of the Cleveland district committee. Arthur W. Carpenter, manager of Testing Laboratories, B. F. Goodrich Company, is chairman of the program committee.

Other members of the district committee are: W. H. Eisenman, secretary of American Society for Steel Treating; D. M. Avey, editor of The Foundry, Penton Publishing Company; R. J. Anderson, consulting engineer; H. M. Boylston, Case School of Applied Science; F. C. Elder, American Steel and Wire Company; J. V. Emmons, Cleveland Twist Drill Company; Zay Jeffries, Aluminum Company of America; H. J. Love, National Slag Association; C. B. Murray, Crowell & Murray, Inc.; A. J. Tuscany, Gray Iron Institute; E. E. Ware, the Sherwin-Williams Company.

Akron division: Arthur W. Carpenter, B. F. Goodrich Company; J. J. Allen, Firestone Tire and Rubber Company; E. G. Kimmich, Goodyear Tire and Rubber Company.

Youngstown division: G. A. Reinhardt, Youngstown Sheet and Tube Company; L. B. Grindlay, Republic Steel Corporation; Fred Hubbard, Standard Slag Company.

W. H. Eisenman is vice-chairman and D. M. Avey, secretary. Arthur W. Carpenter is chairman of the Akron division and G. A. Reinhardt chairman of the Youngstown division.

NEW DODGE DEALER NAMED IN PONTIAC

Detroit, March 3.—Thomas J. Doyle, Inc., Dodge distributor in the Detroit territory, this week appointed the Braid Motor Sales as Dodge dealer in Pontiac. The new concern is located at 88 South Cass. John Braid is proprietor. He has been in the automobile business in Pontiac for the past twelve years. Associated with him are his two sons, Carl in charge of sales, and John, Jr., in charge of service. The new dealership is centrally located in the downtown section.

NEW SPECIALTY COMPANY

Buffalo, N. Y., March 3.—The Auto Specialties Manufacturing Company has been organized by Leo J. Jarmus and associates, to establish and operate a plant at 161 Niagara St., for the manufacture and distribution of automobile specialties and supplies.

COMING EVENTS

FEBRUARY

22-March 5—San Francisco, Cal. Automobile Salon. Palace Hotel.
27-March 5—Albany, N. Y. 22d Annual Automobile Show, Albany Automobile Dealers' Association, Inc., State Armory.
29-March 5—Seattle, Wash. Show.

MARCH

3- 5—Gary, Ind. Automotive Trade Association, annual show. A. H. Travers, chairman.
3- 5—Manchester, Conn. Show.
3- 6—Decatur, Ill. Show.
5-13—Toronto, Can., National Spring Motor Show of Canada. Canadian Automobile Chamber of Commerce, Coliseum, Exhibition Grounds.
10-12—Ansonia, Conn. Show.

OCTOBER

3- 7—Buffalo, N. Y. National Metal Exposition, 174th Regiment Armory W. H. Eisenman, 7016 Euclid Ave., Cleveland, director.
3- 7—Buffalo, N. Y. National Metal Congress. Sponsored by American Society for Steel Treating, with cooperation of American Society of Mechanical Engineers, Institute of Metals and Iron and Steel Divisions of American Institute of Mining and Metallurgical Engineers, American Welding Society, Wire Association.

ECONOMIC FOLLY SEEN IN PLAN FOR BIG TRUCK LEVIES

(Continued from Page 1)

point where it would be confiscatory as well.

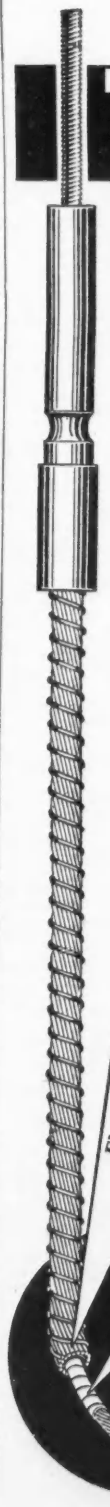
"Such a measure," he continued, "would not only be a serious handicap to farmers, merchants and other groups to which the truck is a necessary implement of transportation, but in many cases would deprive them completely of the use of motor vehicles.

"Clogging the channels of business in this ruthless fashion would result in many serious complications. The revenues of the state would be reduced not only by the amount represented by the abandonment of truck operation, but also by substantial decreases in the receipts from the income taxes of thousands of concerns whose activities automatically would be impaired," he warned.

WORLD LEAD PRODUCTION BELOW PREVIOUS LEVEL

New York, March 3.—World lead production in January totaled 121,092 short ton, against 123,247 in December and 146,710 in January, 1931, according to American Bureau of Metal Statistics. Production of lead in United States in January was 32,180 short tons, compared with 33,576 in December, 1931.

TRU-LAY PUSH-PULL CONTROLS



NEW

The housing of the Tru-Lay Push-Pull Controls is similar in construction to the well-known Tru-Lay Brake Controls, of which over 4,000,000 are in use. The actuating member is an armored strand. The armored portion takes the compression . . . The strand portion carries the tension.

SIMPLIFY CHASSIS DESIGN

Tru-Lay Push-Pull Controls do away with elaborate control mechanisms for Free Wheeling, Shock Absorber, Brake and other manually operated controls. Rods, toggles, pins and cotters are eliminated. No adjustments are needed—variations are automatically taken up in the bend of the control. The armored strand slides in a bath of grease, good for the life of the car.

Let us furnish samples for test to your specifications.

AMERICAN CABLE COMPANY, Inc.
General Motors Bldg., Detroit, Michigan
Executive Offices:
New York Central Bldg., 230 Park Ave., New York, N. Y.

An Associate Company of the American Chain Company, Inc.

1 Flexible metal housing is absolutely grease tight and water proof.

2 Spiral non-compressible steel covering is tightly processed over inner strand.

3 Tru-Lay Preformed Inner Strand carries the tension.

Protected by U. S. and Foreign Patents

Key City Sales Reveal Bright Spots in February

(Continued from Page 1)

made an auspicious start for the year.

In San Antonio, Tex., passenger car sales in February, 1932, were 262, trucks 24 and used units of both classes 655. In January this year passenger car sales totaled 272, truck sales 49 and used units 629. In February, 1931, passenger car sales were 423, truck sales 76 and used vehicles 883.

Automotive Daily News' correspondent in San Antonio reports that business is improving and sales are picking up. The show was a great success and is contributing to improvement.

Sales in San Francisco up to and including February 26 amounted to 546 vehicle units, as against 945 units in the same period of 1931.

ALLIS-CHALMERS SALES FIVE TIMES THAT OF JAN., 1931

Milwaukee, Wis., March 3.—Sales of Allis-Chalmers industrial tractors since January 1 are five times what they were a year ago, according to H. C. Merritt, in charge of the company's tractor division. Business for this branch of the corporation will be considerably better in 1932 than it was last year, it is reported.

TRUCK SALES MAKE BETTER SHOWING IN SOUTHERN STATES

(Continued from Page 1)

313 in January, 1931, off 12 per cent.

North Carolina's January total was 329, as against 463 last year, off 29 per cent., while South Carolina reported 153, as against 315, a decline of 51 per cent.

Texas reported 678 new commercial car registrations for January, as against 1,183 a year ago, off 42.7 per cent.

The following table compares new commercial car registrations in the eight Southern states in January of this year with a year ago:

	1932	1931
Alabama	180	255
Florida	428	932
Mississippi	103	116
Missouri	274	313
North Carolina	329	463
South Carolina	153	315
Texas	678	1,183
Virginia	398	352
Totals	2,443	3,929

WISCONSIN AXLES

Heavy loads, high speeds, rough roads—these arduous operating conditions determine the exacting specifications to which Wisconsin Axles must conform.

WISCONSIN AXLE CO.
OSHKOSH WISCONSIN

FINANCIAL NEWS

CHECKER CAB SHOWS PROFIT DURING 1931

New York, March 3.—Checker Cab Manufacturing Corporation and subsidiaries report consolidated net profit for the year ended December 31, 1931, of $481,168.49 after depreciation and reserves for Federal income taxes, or 99 cents per share on the 433,447 shares outstanding on December 31, 1931. The sum of $421,494.13 was appropriated from surplus as of December 31, 1931, as an additional reserve.

Raymond Ellis and Charles Hartman were elected to the board of directors at the meeting held March 1.

HOUDAILLE-HERSHEY REPORTS PROFIT OF $226,232 FOR YEAR

Detroit, March 3. — Houdaille-Hershey Corporation, including Muskegon Motor Specialties Company, reports for year ended December 31, 1931, net profit of $226,232 after charges and Federal taxes. In 1930 Houdaille-Hershey Corporation, excluding Muskegon Motor Specialties Company, reported net loss of $157,406, and Muskegon Motor Specialties Company a net profit of $181,765.

ELECTRIC AUTO-LITE NET IS PUT AT $3,913,833

Toledo, March 3.—Net earnings of Electric Auto-Lite Company and subsidiaries for year ended December 31, 1931, after charges and preferred dividends but before Federal taxes were $3,913,833, comparing with $5,393,298 in 1930.

MOTOR PRODUCTS CORP. REPORTS PROFIT FOR 1931

Detroit, March 3.—Report of Motor Products Corporation for year ended December 31, 1931, shows net loss of $18,461 after charges and depreciation. This compares with net income in 1930 of $487,139, equivalent to $2.49 a share on 195,699 no-par shares of capital stock.

CELLULOID CORP. REPORTS $588,857 LOSS IN 1931

Newark, N. J., March 3.—Operations of the Celluloid Corporation for 1931 resulted in a net loss of $588,857.55, as compared with a loss of $259,275.79 for the previous year. Current assets show a 52 to 1 ratio to current liabilities. A decrease of $72,974.04 is reported in cash and securities. The net loss reduced the surplus as per balance sheet to $161,130.54.

WESTERN AUTO SUPPLY SHOWS NET PROFIT FOR '31

New York, March 3.—Report of Western Auto Supply Company of Kansas City, Mo., for year ended December 31, 1931, shows net profit of $555,638 after charges and Federal taxes, equivalent to $2.83 a share on combined 195 961 no-par shares of Class A and Class B common stock. This compares with net profit in 1930 of $747,073, or $3.81, on combined Class A and Class B shares.

WHITE SECURITIES CORP. DECLARES DIVIDEND $1.75

Cleveland, O., March 3.—White Motor Securities Corporation declared the regular quarterly dividend of $1.75 on preferred stock, payable March 31 to stock of record March 14.

ILL. COURT INTERPRETS LIQUOR TRANSPORT LAW

Springfield, Ill., March 3. — An isolated instance of carrying a jug of wine in an automobile is not within the exclusion of an automobile liability insurance policy under which there is no liability while the car "is being used for transporting intoxicating liquor," according to a recent holding of the Illinois Supreme Court. The case was entitled Treolo vs. Iroquois Auto Insurance Underwriters.

Judgments were obtained against the insured by two guests who were riding in his car when an accident occurred. The judgments not having been paid by the insurer, the insured instituted suit to recover the amounts.

The court held that in interpreting the exclusion clause, it is improper to consider the world "transporting" alone.

"To say that the single, isolated instance of carrying a jug of wine should defeat the rights of Treolo under his policy would be a strained and most unreasonable construction of the exclusion clause," the court said. "Whether such transportation was a violation of the prohibition act is not before us."

M. E. W. A. ORGANIZES REGIONAL GROUP IN OHIO VALLEY

(Continued from Page 1)

sided, Mr. Satchell and Mr. Ruark emphasized the necessity of jobber co-operation in meeting competition from other channels of distribution. They also stressed the rapid organization of regional groups, the remarkable growth in membership of the Motor and Equipment Wholesalers Association, and the purpose and methods of the national association in bringing about solidarity among the automotive jobbing interests of the country. They stated that these developments indicate the determination of jobbers to have the strongest possible organization for the proper representation of their interests.

At this, as well as regional group meetings held in Minneapolis, Minn., and Dallas, Tex., both attended by Mr. Ruark, he reported enthusiastic indorsement by members of the interchange of information plan on distribution through adoption of the key-line distribution chart of the association.

Performance Proves What Brockway Trucks Will Do

Brockway Trucks are built by a long-established, stably organized company — an organization with fifty-seven years of experience and progress, more than a score of which have been devoted to the exclusive building of high grade motor trucks.

A CHASSIS FOR EVERY HAULING REQUIREMENT

Brockway Motor Truck Corporation
Cortland, New York

Cumulative New Commercial Car Registration Statistics, January, 1931

This table is repeated for comparative purposes only. Figures for January, 1932, will be found on Page 3.

States	Autocar	Brockway-Indiana	Chevrolet	Diamond-T	Dodge	Federal	Ford	G. M. C.	International	La France-Republic	Mack	Pierce-Arrow	Reo	Sterling	Stewart	Studebaker	White	Willys-Overland	Miscellaneous	Totals	States
Alabama, '31			110		3		121	3	7		2						2	7		255	Alabama, '31
Arizona, '31			33		1		79		5				2		1	3			5	129	Arizona, '31
Connecticut, '31	3	2	58		20		77	2	5		1		12			8	2	1	3	194	Connecticut, '31
Delaware, '31		1	29		2		33	4									1			70	Delaware, '31
Florida, '31			307		20	1	504	1	51		6		10				21	7	4	932	Florida, '31
Idaho, '31	4		47		8		102	1	15				2					1	2	182	Idaho, '31
Illinois, '31	6	18	581	90	91	8	822	28	163	2	6		9	11	11		20	19	120	2005	Illinois, '31
Indiana, '31		14	259	4	22	4	359	18	55				6		6	11	1	6	11	776	Indiana, '31
Iowa, '31			221	1	37	1	200	5	50	2	3		5			11	1	1	8	546	Iowa, '31
Kentucky, 31	1		171		19		145	7	39				3			12	1	2	8	408	Kentucky, 1931
Maryland, '31	4	8	85	3	8		117	5	21		7		6	2		4	3	4	3	280	Maryland, '31
Michigan, '31			220	1	27	2	422	18	32		1		11			4		5	24	767	Michigan, '31
Minnesota, '31		1	164	6	24	4	209	7	35	2	3		11			14	4	9	7	500	Minnesota, '31
Mississippi, '31			37		1		70	2	1		1						4			116	Mississippi, '31
Missouri, '31	1	1	121	3	8	1	136	10	14		8			1			3	2	4	313	Missouri, '31
Montana, '31			56		4		91	4	19		1		3					1	3	182	Montana, '31
Nebraska, '31		1	257	1	12	1	260	11	59		4		7			15	2	7	6	643	Nebraska, '31
Nevada, '31			17		6		23		1				2			1	1		1	52	Nevada, '31
New Hamp., '31			10		2	2	17				1									32	New Hamp., '31
New Jersey, '31	19	19	324	3	85	10	701	43	58	2	42		17	7	7	13	24	4	57	1435	New Jersey, '31
New Mexico, '31			96	1	5		87	1	8				2			1			2	203	New Mexico, '31
N. Carolina, '31	1		224		25	1	185	1	13		1		2			1	2	3	4	463	N. Carolina, '31
N. Dakota, '31			32		6		40	2	17									1		98	N. Dakota, '31
Ohio, '31	6	7	304	2	46	2	458	23	43	3	1		11	1	4	18	14	15	22	980	Ohio, '31
Oklahoma, 1931		1	157		42	8	181	8	27				4			4	1	1	4	438	Oklahoma, 1931
Oregon, '31			81		5	1	169	8	8	1	4		4	1		7	3		9	301	Oregon, '31
Pennsylvania, '31	22	14	340	4	103	13	599	22	75	4	24		16	10	10	17	13	9	34	1329	Pennsylvania, '31
S. Carolina, '31		9	152		4	1	129	2	3		7		1			2	1		4	315	S. Carolina, '31
S. Dakota, '31		1	68	7	10		66	2	27				2			5		2	3	193	S. Dakota, '31
Texas, '31		6	434	3	42	8	517	21	98		1		14			7	3	5	24	1183	Texas, '31
Utah, '31			28				34	5	4							4		1	7	83	Utah, '31
Virginia, '31	2	1	160		14	4	133	12	7	1	6				2	1	5		4	352	Virginia, '31
Washington, '31			114		15	2	308	14	27		5		5	1		9	5	4	38	547	Washington, '31
W. Virginia, '31			92	1	18		102	5	14		7					3	2	4	3	251	W. Virginia, '31
Wisconsin, '31		2	242	4	21	3	292	8	29				7	3	2	13	1	1	26	654	Wisconsin, '31
Wyoming, 31			17		5		44		2							2	3		2	75	Wyoming, 1931
Totals	69	106	5648	134	761	77	7832	303	1032	17	142		174	37	43	190	143	122	452	17282	Totals

Combined report: Willys, Whippet and Willys-Knight.

Major Specifications and Mechanical Details of 1932 Commercial Cars

LEADING MAKES NATIONALLY DISTRIBUTED

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Transmission	No. Spds. For.	Rear Axle Make	Type Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brakes	Standard Wheel Base	Chassis Wt.	Standard Tire Sizes Front	Rear
Am. La France Big Chief	6	6725	Own	L	6	4½x6	411.0	40.8	85@1800	—	—	Own	—	Ross	Zen	Vac	DR	Own	4	Own	2 R	32.8	W41A	—	226	10600	40x8S	40x8DS
Austin	400	475	Own	L	4	2.2x3	45.6	7.8	13@3000	G	Hex	Rock	Spic	Own	Til	Gra	Aut	W-G	3	Sal	Sp	5.25	O4M	76.5	75	1210	3.75x18	3.75x18
Autocar A	1½-2	3200	Own	L	6	4 x4¾	358.0	38.4	82@2400	G	Per	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	Sp	27 9	LO4ID	460	150	5300	34x7	34x7
Autocar D	2-2½	3500	Own	L	6	4 x4¾	358.0	38.4	82@2400	G	Per	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	33 5	LO4ID	460	150	5600	34x7	34x7D
†Autocar SH	2½-3	4300	Own	L	6	4⅛x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	44 0	O2IM	328	114	6770	34x7	34x7D
†Autocar SCH	2½-3	4300	Own	L	6	4⅛x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	44.0	O2IM	328	157	6900	34x7	34x7D
†Autocar H	3	4100	Own	L	4	4½x5½	350.0	32.4	45@1450	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	48.6	O2IM	328	114	6770	34x7	34x7D
†Autocar HS	3½	4600	Own	L	4	4½x5½	350.0	32.4	45@1450	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	54 3	O2IM	516	114	7600	40x8	40x8D
†Autocar SHS	3-3½	4800	Own	L	4	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	54.3	O2IM	516	114	8100	40x8	40x8D
Autocar SCHS	3-3½	4800	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	54 3	O2IM	516	157	8180	40x8	40x8D
Autocar N	3-3½	4600	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	41 2	OL4IH	374	174	7990	36x8	36x8D
Autocar TEA	3-3½	5350	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	12	Own	2 R	101 1	LO4ID	602	192	8900	36x8	36x8D
Autocar TFA	3½-5	6100	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	12	Own	2 R	101 3	LO4ID	602	192	9300	38x9	38x9D
Autocar C	3½-5	5500	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	51.7	O2IM	516	172	9500	42x9	42x9D
Autocar F	7½	6800	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	Own	Br-L	Spic	Ross	Str	Vac	DR-	Br-L	7	Tim	We	94.0	LT4DV	674	173	11000	36x7S	40x8DS
*Autocar G	10	9000	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	Own	Br-L	Spic	Ross	Str	Vac	DR	Br-L	7	Tim	Wo	100 0	T6IA	720	171	13000	36x8	36x8D
Brockway 80	9500	1215	Con	L	6	3⅜x4	214.7	27.3	61@3000	C	G &O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	36.2	CB4IM	248	149	4075	20x6.00	20x6.00D
Brockway 90	11500	1525	Con	L	6	3⅜x4⅝	248.2	27.3	65@2700	C	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	37.4	CB4IM	280	149	4355	20x6.50	20x6.50D
Brockway 92	12500	1800	Con	L	6	3⅜x4⅝	248.2	27.3	65@2700	C	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	37.4	CB4IM	280	149	4400	20x6.50	20x6.50D
Brockway 120	15000	1990	Con	H	6	4 x4⅛	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Tim	Sp	38.5	L4IH	353	156	5500	32x6	32x6D
Brockway 140	17500	2495	Con	H	6	4 x4⅛	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2 R	43.5	L4IHV	386	156	6100	32x6	32x6D
Brockway 141	19500	2935	Con	H	6	4 x4⅛	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2 R	46.2	L4IHV	380	170	6500	32x6	32x6D
Brockway 170	18500	3160	Con	H	6	4⅛x4¾	380.9	40.8	89@2200	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2 R	46.6	L4IHV	380	170	7100	32x6	32x6D
Brockway 175	19500	3660	Con	H	6	4⅜x4¾	427.5	45.9	100@2200	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Ful	5	Wis	2 R	46.6	L4IHV	380	170	7200	34x7	34x7D
Brockway 195	22000	3820	Con	H	6	4⅛x4¾	380.9	40.8	89@2200	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2 R	52.4	L4IHV	471	170	8100	34x7	34x7D
Brockway 220	25000	4560	Con	H	6	4⅜x4¾	427.5	45.9	100@2200	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2 R	50.7	L4IHV	546	170	8675	36x8	36x8D
Brockway 260	28000	5850	Con	H	6	4½x5¼	501.0	48.6	120@2200	C	G & O	Ful	Spic	Ross	Zen	P	*Aut	Ful	4	Wis	2 R	50.7	L4IHV	546	212	9000	22x10.50	22x10.50D
Chevrolet	½	355	Own	H	6	3⅛x3⅜	194.0	26.3	50@2600	G	Hai	Own	Own	Own	Car	P	DR	Own	3	Own	Sp	13.6	O4IM	161	109	*1880	19x4.75	19x4.75
Chevrolet	1½	575	Own	H	6	3⅛x4¾	194.0	26.3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	4	Own	Sp	33 4	O4IM	170	157	3015	30x5	30x5D
Chevrolet	1½	520	Own	H	6	3⅛x3¾	194.0	26.3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	4	Own	Sp	33 4	——	—	131	2700	30x5	32x6
Diamond T 216 B	1½	795	Her	L	6	3⅜x4¼	228.0	27.3	56@2400	G	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Cla	Sp	——	L4IH	252	135¼	3260	20x6.50B	20x6.50B
Diamond T 316	2	1195	Her	L	6	3⅜x4¼	263.0	29.4	65@2400	G	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Cla	Sp	——	L4IH	350	155	4400	20x6.50B	20x6.50DB
Diamond T 303 F	2-2½	1795	Her	L	6	3⅜x4½	298.0	33.7	67@2400	G	G & O	Borg	Spic	Ross	Zen	P	Aut	Cov	4	Cla	Sp	——	L4IHV	350	159¾	5000	20x7.00B	20x7.00DB
Diamond T 551 B	2½-3	2395	Her	L	6	4 x4½	339.0	38.4	74@2400	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	4	Tim	Sp	——	L4IHV	408	168	5600	20x7.50B	20x7.50DB
Diamond T 303 F B	2-2½	2425	Her	L	6	4 x4½	339.0	38.4	74@2400	G	B & O	Cov	Spic	Ross	Zen	P	L-N	Cov	4	Cla	Sp	——	L4IHV	408	199	6100	20x7.50	20x7.50DB
Diamond T 504 A	3	2650	Her	L	6	4 x4½	339.0	38.4	74@2400	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	5	Wis	2 R	——	L4IHV	408	178½	6400	20x8.25B	20x8.25DB
Diamond T 506 A	3	2950	Her	L	6	4¼x4½	383.0	43.3	85@2200	G	G & O	Cov	Spic	Ross	Zen	P	L-N	Cov	5	Wis	2 R	——	L4IHV	408	184	6400	20x8.25B	20x8.26DB
Diamond T 603	3-4	3395	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	G & O	Cov	Spic	Ross	Zen	P	L-N	Cov	5	Wis	2 R	——	L4IHV	499	169	7500	20x9.00B	20x9.00DB
Diamond T 606 B	3-4	3695	Her	L	6	4½x5¼	501.0	48.6	100@2200	C	G & O	Cov	Spic	Ross	Zen	P	L-N	Cov	5	Wis	2 R	——	L4IHV	499	187½	7500	20x9.00B	20x9.00DB
Diamond T 750	4-5	4925	Her	L	6	4⅜x5¼	529.0	51.4	114@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	5	Wis	2 R	——	W4I	552	178	8300	22x9.75B	22x9.75DB
*Diamond T 801	4	4140	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	G & O	Cov	Spic	Blo	Ross	Zen	P	Aut	Br-L	7	Wo	——	L6IHV	571	189½	8300	36x8P	36x8P
*Diamond T 1201	6	5600	Her	L	6	4½x5¼	501.0	48.6	100@2200	G	G & O	Cov	Spic	Blo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	——	W41A	238	190	11000	34x7P	34x7DP
*Diamond T 1402	8	6400	Her	L	6	4⅝x5¼	529.0	51.3	104@2400	G	G & O	Cov	Spic	Blo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	——	W41A	238	190	11700	36x8P	36x8DP
*Diamond T 1603	8	7500	Wak	L	6	5 x5¾	677.4	60.0	127@2000	G	G & O	Br-L	Spic-Blo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	——	W41A	238	194	12500	36x8P	36x8D
Dodge Bros. UF 10	½	375	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Own	W-G	Car	P	DR	Own	3	Own	Sp	13.9	O4IH	121	109	1925	19x5.00	19x5.00
Dodge Bros. F 15	½	445	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Un	W-G	Car	P	DR	Own	3	Own	Sp	13.9	O4IH	121	109	1975	19x5.25	19x5.25
Dodge Bros. U 1	¾	490	Own	L	4	3⅜x4¾	196.0	21.0	45@2800	G	Fed	Borg	Spic	Han	Car	Vac	NE	Own	3	Own	Sp	19.2	O4IH	189	124	2260	20x6.00	20x6.00
Dodge Bros. DA 1	¾	595	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Borg	Spic	Han	Zen	Vac	NE	Own	3	Own	Sp	19.2	O4IH	189	124	2360	20x6.00	20x6.00
Dodge Bros. U 1	1	495	Own	L	4	3⅜x4¾	196.0	21.0	45@2800	G	Fed	Borg	Spic	Han	Car	Vac	NE	Own	4	Own	Sp	36.1	O4IH	206	133	2590	20x6.00	32x6
Dodge Bros. DA 1	1	595	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Borg	Spic	Han	Zen	Vac	NE	Own	4	Own	Sp	33.4	O4IH	206	133	2690	20x6.00	32x6
Dodge Bros. UG 30	1½	525	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	C	Fed	Borg	Cle	Own	Car	P	DR	Mun	4	Own	Sp	36.9	O4IH	176	131	2290	6.00x20	32x6
Dodge Bros. UF 30	1½	595	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	W-G	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	187	136	2581	20x6.00	32x6
Dodge Bros. UF 31	1½	670	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	W-G	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	229	165	2757	20x6.00	32x6
Dodge Bros. F 30	1½	695	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	W-G	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	187	136	2631	20x6.00	32x6
Dodge Bros. F 31	1½	770	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	W-G	Car	P	DR	Own	4	Own	Sp	37 1	O4IH	229	165	2807	20x6.00	32x6
Dodge Bros. F 35	1½	1425	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Long	Borg	Cle	Han	Zen	P	DR	Own	4	Own	Sp	41.4	O4IH	311	140	3780	20x6.00	20x6.00D
Dodge Bros. F 36	1½	1485	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Long	Borg	Cle	Han	Zen	P	DR	Own	4	Own	Sp	41.4	O4IH	311	165	3972	20x6.00	20x6.00D
*Dodge Bros. F 40	2	1995	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	43.7	O4IH	350	150	5273	20x6.50	20x6.50D
*Dodge Bros. F 41	2	2085	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	43.7	O4IH	350	165	5211	20x6.50	20x6.50D
Dodge Bros.	3	1515	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Long	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	135	4235	32x6	32x6D
Dodge Bros.	3	1565	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Long	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	165	4520	32x6	32x6D
Dodge Bros.	3	1615	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Long	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	185	4715	32x6	32x6D
Dodge Bros. F 60	3	2645	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	2 R	56.6	O4IH	416	146	5543	32x6	32x6D
*Dodge Bros. F 61	3	2575	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	48 8	O4IH	416	170	5789	32x6	32x6D
*Dodge Bros. F 62	3	2695	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	48.8	O4IH	416	195	5901	32x6	32x6D
Essex Com.	¾	445	Own	L	6	2¾x4½	163.0	18.2	55@3300	C	Har	Own	Spic	Gem	Mar	Vac	Aut	Own	3	Own	Sp	5 40	4M	—	110½	1970	20x5	20x5.50
Federal D 3	*1½	670	Con	L	4	3⅞x4¼	200.5	24.0	50@2700	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L4IH	377	130	3225	20x6.00	32x6
Federal E 3	*1½	695	Con	L	6	3⅜x4	215.0	27.3	72@3400	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L4IH	377	130	3225	20x6.00	32x6
Federal F 7	*1¾	1325	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Gem	Zen	P	DR	Own	4	Tim	Sp	29.2	L4IH	413	132	3765	30x5	30x5D
Federal F 8	*1¾-2	1495	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Gem	Zen	P	DR	Own	4	Tim	Sp	34.0	L4IH	438	132	3865	30x5	30x5D
Federal A 6	*2	1695	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Cla	Sp	38.5	L4IH	450	151	4580	32x6	32x6D
Federal A 6 T	*2½	1795	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Tim	Sp	47.1	L41HV	659	151	5110	32x6	32x6D
Federal A 6 T W	*2½	2130	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Tim	Sp	52.9	L41HV	659	151	5110	32x6	32x6D
Federal T 3 W	*2½	1595	Wau	L	4	4 x5	251.0	25.6	50@2000	G	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Tim	Wo	36.3	L4IH	575	148	5110	32x6	36x8
Federal T 8 W F	*2½	1795	Con	L	6	3⅝x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Tim	Wo	38.8	L41HV	659	148	5400	32x6	32x6D
*Federal D 2 S W	*2½-3	1050	Con	L	4	3⅞x4¼	200.5	24.0	50@2700	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	566	140	3925	20x6.00	32x6
*Federal E 2 S W	*2½-3	1150	Con	L	6	3⅜x4	215.0	27.3	60@2600	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	566	145	3975	20x6.00	32x6
*Federal D 2 D	*2½-3	1350	Con	L	4	3⅞x4¼	200.5	24.0	50@2700	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	566	140	4235	20x6.00	32x6
*Federal E 2 D	*2½-3	1450	Con	L	6	3⅜x4	215.0	27.3	60@2600	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	566	145	4310	20x6.00	32x6
Federal T 10 B	*2½-3	2550	Con	H	6	4 x4⅛	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Sp	44.5	L41HV	659	165	6550	34x7	34x7D
Federal T 10 W	*2½-3	2635	Con	H	6	4 x4⅛	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Sp	44.0	L41HV	659	165	6550	34x7	34x7D
Federal T 10 D R	*2½-3	2685	Con	H	6	4 x4⅛	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	2R	45.6	L41HV	659	165	6550	34x7	34x7D
Federal U 6	*3½-4	3860	Con	H	6	4⅛x4¾	381.0	40.8	85@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Br-L	7	Tim	Wo	64.6	L41HV	767	165	7420	36x8	36x8D
Federal U 6 D R	*3½-4	3860	Con	H	6	4⅛x4¾	381.0	40.8	85@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Br-L	7	Tim	2R	69.6	L41HV	767	165	7420	36x8	36x8D
*Federal A 6 S W	*4	2195	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Cla	Sp	38.5	L6IHV	675	164	5620	32x6	32x6D
Federal C 7	*5-6	4485	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Han	Zen	P	DR	Br-L	7	Tim	2R	75 2	L41HV	866	195	9550	20x9.75	20x9.75D
Federal C 7 W	*5-6	4485	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Han	Zen	P	DR	Br-L	7	Tim	W	78.0	L41HV	866	195	9550	20x9.75	20x9.75D
Federal C 8	*5-6	4895	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Han	Zen	P	DR	Br-L	7	Tim	2R	75.2	L41A	921	195	9650	20x9.75	20x9.75D
Federal C 8 W	*5-6	4895	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Han	Zen	P	DR	Br-L	7	Tim	Wo	78.0	L41A	921	195	9650	20x9.75	20x9.75D
Federal X 8	*7½	4335	Con	L	4	5 x6	471.0	40.0	61@1350	G	Long	Borg	Pet	Gem	Zen	Vac	AB	Br-L	7	Tim	Wo	111.0	T21MV	603	162	9750	36x6S	40x14S
Federal X 8 D R	*7½	4335	Con	L	4	5 x6	471.0	40.0	61@1350	G	Long	Borg	Pet	Gem	Zen	Vac	AB	Br-L	7	Tim	2R	106.0	T21MV	603	162	9750	36x6S	40x14S
Federal X 8 R	*7½	4735	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Gem	Zen	P	DR	Br-L	7	Tim	Wo	111.0	T21MV	462	162	10475	40x8	40x8D
Federal X 8 R D R	*7½	4735	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Gem	Zen	P	DR	Br-L	7	Tim	2R	106.0	T21MV	462	162	10475	40x8	40x8D
Ford AA	1½	495	Own	L	4	3⅞x4¼	200.5	24.0	40@2200	G	Own	Long	Spic	Gem	Zen	Gra	Own	Own	4	Own	S-T	42.2	O4IM	358	131½	*2866	20x6.00B	32x6
Ford AA	1½	525	Own	L	4	3⅞x4¼	200.5	24.0	40@2200	G	Own	Long	Spic	Gem	Zen	Gra	Own	Own	4	Own	S-T	42.2	O4IM	358	157	2738	20x6.00B	32x6
General Motors T-15	*6500	645	Own	L	6	3⅛x3⅞	200.3	26.3	60@3000	C	Long	Own	Mec	Sag	Mar	P	DR	Own	3	Own	Sp	16.1	B4IM	308	130	2625	20x5.50B	20x5.50B
General Motors T-18	*8200	595	Own	L	6	3⅛x3⅞	200.3	26.3	60@3000	C	Long	Own	Own	Sag	Mar	P	DR	Own	4	Own	Sp	35.7	O4IM	361	131	2800	30x5P	32x6P
General Motors T-19	*10000	745	Own	L	6	3⅛x3⅞	200.3	26.3	60@3000	C	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	40.7	B4IM	377	130	3115	20x5.50B	62x6P
General Motors T-25	*9000	1200	Buick	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	29.6	B4IM	377	130	3375	20x6.00B	20x7.50B
General Motors T-26	*11000	1360	Own	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	28.8	B4IM	427	130	3685	20x6.50B	20x8.25B
General Motors T-30	*12500	1545	Buick	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	28.6	B4IM	452	141	4490	30x5P	30x5DP
General Motors T-31	14000	1845	Own	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	35.5	B4IM	524	141	4695	32x6P	32x6DP
General Motors T-42	*15000	1845	Buick	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	33.4	B4IM	524	141	4725	32x6P	32x6DP
General Motors T-44	*16000	1935	Buick	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	2R	40.9	B4IM	524	141	5005	32x6P	32x6DP
General Motors T-45	*16000	1990	Own	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	2R	50.7	B4IM	524	141	5050	32x6P	32x6DP
General Motors T-51	*19000	2565	Own	H	6	3⅜x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	40.6	B4IM	574	155	5955	34x7P	34x7DP
General Motors T-53	*19000	2690	Own	H	6	3⅜x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	2R	49.8	B4IM	574	155	6095	34x7P	34x7DP
General Motors T-60	*22000	3035	Buick	H	6	3⅜x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Wo	52.5	B4IM	685	154	6925	34x7P	34x7DP
General Motors T-61	*22000	3445	Own	H	6	3⅜x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Str	P	DR	Own	4	Own	Wo	52.5	B4IMV	685	154	6965	20x9.00B	20x9.00DB
General Motors T-82	*24000	3795	Own	H	6	3⅜x5	331.4	33.7	94@2500	G	Long	Own	Pet	Sag	Str	P	DR	Own	12	Own	Wo	142.5	B4IM	793	156	7500	20x9.00B	20x9.00DB
General Motors T-83	*24000	3990	Own	H	6	3⅜x5	331.4	33.7	94@2500	G	Long	Own	Spic	Sag	Str	P	DR	Own	12	Own	Wo	142.5	B4IMV	865	155	7670	20x9.00B	20x9.00DB
General Motors T-85	*30000	5600	Own	H	6	4¼x5½	468.0	43.3	115@2100	C	Long	Own	Spic	Sag	Str	P	DR	Own	4	Own	2R	53.3	B

Major Specifications and Mechanical Details of 1932 Commercial Cars

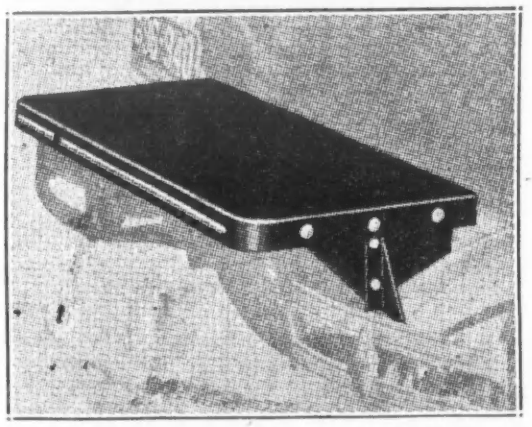
LEADING MAKES NATIONALLY DISTRIBUTED

(CONTINUED FROM PAGE 6)

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Make Transmission	No. Spds. For.	Rear Axle Make	Rear Axle Type	Final Drive Reduction	Type Service Brakes	Area Service Brakes	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Standard Tire Sizes Rear
International A 2	1½	615	Wak	L	4	3⅜x4½	186.0	21.0	39@2400	G	Mod	Mec	Mec	Ross	Zen	Vac	DR	W-G	4	Own	Sp	39.5	BE4IM	212	136	*2935	5.50x20	6.00x20
International B 2	1½	665	Wak	L	4	3⅜x4½	186.0	21.0	39@2400	G	Mod	Mec	Mec	Ross	Zen	Vac	DR	Mec	6	Own	Sp	47.3	BE4IM	212	136	2960	5.50x20	6.00x20
International A L 3	1½	1450	Lyc	L	6	3¼x4½	224.0	25.3	54@2700	G	Mod	Own	Mec	Ross	Zen	Vac	DR	W-G	4	Own	Sp	42.9	B4IM	295	138	4032	20x6.00	20x6.00D
International A 3	1½	795	Lyc	L	6	3¼x4½	224.0	25.3	54@2700	G	Mod	Rock	Mec	Ross	Zen	P	DR	W-G	4	Own	Sp	33.8	BE4IM	301	136	3500	6.00x20	6.00x20
International A 3½	1½	1250	Lyc	L	6	3¼x4½	224.0	25.3	54@2700	G	Mod	Rock	Mec	Ross	Zen	P	DR	W-G	4	Own	Sp	34.9	BE4IM	302	136	3700	6.00x20	6.00x20D
International A 4	2	1750	Own	H	6	3⅜x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	Vac	DR	Own	5	Own	Sp	47.8	BE4IM	378	145	5221	32x6	32x6D
International A 5	3	2350	Own	H	6	3⅜x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	Vac	DR	Own	5	Own	Sp	52.6	BE4IM	430	156	5895	34x7	34x7D
International A 6	3	2675	Own	H	6	3⅜x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	Vac	DR	Own	5	Own	Sp	62.5	BE4IM	430	156	6120	34x7	34x7D
International W 1	2½	3850	Hall	H	4	4¼x5½	312.0	28.9	59@2000	C	Own	Own	Own	Own	Zen	Vac	RB	Own	5	Own	2R	60.5	BE4IM	710	148	8300	36x8S	36x8S
International W 3	3½	4850	Hall	H	4	4¾x5½	390.0	36.1	69@2000	C	Own	Own	Own	Own	Zen	Vac	RB	Own	5	Own	2R	70.5	BE4IM	794	160	10125	40x12S	40x12S
International A 7	5	6200	Own	H	6	4½x5½	525.0	48.8	117@2200	G	Mod	Rock	Mec	Ross	*Zen	P	DR	Own	5	Own	2 R	52.3	BO4IM	730	123	11250	9.75x20	9.75x20D
International A 8	5	6300	Own	H	6	5 x5½	650.0	60.0	136@2100	G	Mod	Rock	Mec	Ross	*Zen	P	DR	Own	5	Own	2 R	52.3	BO4IM	730	123	11250	9.75x20	9.75x20D
La France Rep. A 1	6000	795	Lyc	L	6	3 x4¾	201.5	21.5	60@2500	G	G&O	Borg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp	36.1	L4IH	378	132	3000	20x5.50	32x6
La France Rep. C 1	7500	1295	Lyc	L	6	3¼x4½	224.0	25.4	61@2750	G	G&O	Borg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp	35.8	L4IH	413	144	3300	20x6.00	32x6
La France Rep. D 1	9000	1595	Lyc	L	6	3¼x4½	224.0	25.4	61@2750	G	G&O	Borg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp	37.9	L4IH	448	144	3725	30x5	30x5D
La France Rep. E-1	13000	1985	Bud	L	6	3½x4½	260.0	29.5	69@2600	G	Per	Borg	Spic	Ross	Zen	Vac	Aut	Ful	4	Tim	Sp	47.0	L4IHV	578	162	5000	20x7.50	20x7.50D
La France Rep. F-3	15000	2395	Lyc	L	6	3¾x4½	299.0	33.7	80@2500	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Tim	Sp	50.6	L4IHV	656	174	5625	34x7	34x7D
La France Rep. H 2	16000	2985	Lyc	L	6	3½x5	354.0	36.0	85@2300	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Wis	2R	41.6	L4IHV	658	174	6370	34x7	34x7D
La France Rep. H-3	18000	3395	Bud	L	6	4⅛x4¾	383.0	42.1	94@2400	G	Per	Ful	Spic	Ross	Zen	Vac	Aut	Ful	4	Tim	2R	54.0	L4IHV	768	179	——	20x9.75B	20x9.75DB
La France Rep. M 2	20000	4000	Wak	L	6	4⅝x5½	462.0	46.0	97@2000	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	5	Wis	2R	51.0	L4IHV	768	174	7500	36x8	36x8D
La France Rep. M-3	22000	4750	Wak	L	6	4⅝x5½	462.0	46.0	97@2000	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	5	Tim	2R	62.5	L4IHV	768	191	——	20x10 50B	20x10.50DB
La France Rep. 35-2	24000	5600	Wak	L	6	4½x5⅝	549.0	48.6	98@1850	G	Own	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Wis	2R	45.4	L4IHV	870	174	9250	38x9	38x9D
La France Rep. 35-2	28000	5900	Wak	L	6	4⅝x5½	517.0	51.0	100@1800	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Tim	2R	111.5	W4IA	1054	191	——	24x10.50B	24x10.50DB
††Mack B L	——	2580	Own	L	6	3¼x5	248.9	25.3	63@2800	G	Own	Own	Spic	Gem	Str	Vac	NE	Own	4	Tim	Sp	Opt	L4IH	302	148	*4450	20x6.00B	20x6.00DB
††Mack B G	——	3000	Own	L	6	3⅜x5	309.6	31.5	75@2600	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Sp	Opt	O4IV	415	156	5200	32x6	32x6D
††Mack A B	——	4350	Own	L	6	4¼x5	283.7	28.9	60@2200	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2 R	Opt	O4IV	471	146½	7100	34x7	34x7D
Mack A B	——	4600	Own	L	4	4¼x5	283.7	28.9	60@2200	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Ch	Opt	O4IV	471	146½	6850	34x7	34x7D
Mack A B	——	4500	Own	L	6	3⅝x5	309.6	31.5	75@2600	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2 R	Opt	O4IV	471	146½	7050	34x7	34x7D
††Mack A B	——	4150	Own	L	6	3⅝x5	309.6	31.5	75@2600	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Ch	Opt	O4IV	471	146½	6850	34x7	34x7D
††Mack B C	——	5250	Own	L	6	4 x5½	417.7	38.4	100@2300	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	2 R	Opt	O4IV	471	154	8350	36x8	36x8D
††Mack B C	——	5500	Own	L	6	4 x5½	417.7	38.4	100@2300	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Ch	Opt	O4IV	610	154	8500	36x8	36x8D
††Mack B J	——	6150	Own	L	6	4½x5½	525.2	48.6	126@2200	G	Own	Own	Spic	Own	Str	Vac	L-N	Own	4	Own	2 R	Opt	O4IV	567	168½	10100	36x8	36x8D
††Mack A K	——	5150	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	Ch	Opt	O4IV	492	162	9800	36x5S	36x5DS
††Mack A K	——	5250	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	2 R	Opt	O4IV	492	162	9700	36x5S	36x5DS
††Mack A C	——	4950	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	Ch	Opt	OJXM	194	156	9500	36x5S	40x5DS
††Mack A K	——	6450	Own	L	6	4½x5½	525.5	48.6	126@2200	G	Own	Own	Spic	Han	Str	Vac	L-N	Own	4	Own	2 R	Opt	O4IV	492	174	10950	22x10.50B	22x10.50DS
††Mack A C	——	5500	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	Ch	Opt	OJXM	194	156	10100	36x6S	40x6DS
††Mack A C	——	6550	Own	L	6	4½x5½	525.5	48.6	126@2200	G	Own	Own	Spic	Han	Str	Vac	L-N	Own	4	Own	Ch	Opt	O4IV	492	174	11950	24x10 50B	24x10.50DB
††Mack A C	——	6000	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	Ch	Opt	OJXM	194	156	10450	36x7S	40x7DS
††Mack A P	——	9500	Own	L	6	5 x6	706.5	60.0	150@2000	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	O2IV	287	191	12200	36x7S	40x8DS
††Mack A K 6—6 wheel	——	9500	Own	L	6	4½x5½	525.2	48.6	126@2200	G	Own	Own	Spic	Own	Str	Vac	L-N	Own	4	Own	2 R	Opt	O6IA	574	152-52	16300	9.75x22B	5.75x22DB
††Mack A C 6 wheel	——	7650	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	RB	Own	4	Own	Ch	Opt	ORIV	574	125-52	13800	36x6S	40x12S
††Mack A C 6—6 wheel	——	9000	Own	L	6	4½x5½	525.2	48.6	126@2200	G	Own	Own	Spic	Own	Str	Vac	L-N	Own	4	Own	Ch	Opt	O6IA	574	145-52	14950	40x8	40x8D
Mack A P 6 wheel	——	11500	Own	L	6	5 x6	706.5	60.0	150@2000	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	O6IA	574	145-52	15250	40x8	40x8D
††Mack A P 6 wheel	——	12000	Own	L	6	5 x6	706.5	60.0	150@2000	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2 R	Opt	O6IA	574	145-52	——	22x9.75B	22x9.75B
Pierce-Arrow P T	12000	2950	Own	L	6	3¾x4½	298.0	33.5	70@2600	G	Long	Long	Cle	Han	Zen	P	DR	Cla	4	Tim	Sp	——	B4IMV	388	160	*5600	20x7.50B	20x7.50B
Pierce-Arrow P W	18000	4150	Own	L	6	4⅛x4½	361.0	40.3	77@2400	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	*Wo	——	W4IA	488	150	6660	20x9.00B	20x9.00B
Pierce-Arrow P X	24000	5375	Own	L	6	4⅝x4¾	479.0	51.3	103@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	*Wo	——	W4IA	610	160	9300	20x10.50B	20x10.50S
Pierce-Arrow P Y	28000	5950	Own	L	6	4⅝x4¾	479.0	51.3	103@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Own	*Wo	——	W4IA	701	160	10675	24x10.50B	24x10 50B
Pierce-Arrow P Z	34000	6950	Own	L	6	4¾x5¾	611.0	54.1	130@2000	G	Long	Long	Cle	Han	Zen	P	DR	Own	4	Own	*Wo	——	W4IA	702	168	12800	36x7B	40x16B
Relay Series 15 AA	¾	1370	Con	L	6	3⅜x4	214.7	27.3	52@2200	C	Long	Borg	Blo	Han	Str	Vac	Aut	W-G	4	Own	2 R	38.4	L4IH	297	131	3750	30x5P	30x5P
Relay Series 15 AB	1	1400	Con	L	6	3⅜x4	214.7	27.3	52@2200	C	Long	Borg	Blo	Han	Str	Vac	Aut	W-G	4	Own	2 R	38.4	L4IH	297	131	3800	30x5P	30x5P
Relay Series S 11	1	1700	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Own	2 R	25.5	L4IH	297	142	4050	30x5P	30x5P
Relay Series S 11	1½	1900	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Own	2 R	30.0	L4IH	297	162	4500	30x5P	30x5DP
Relay 40 CA	1½	3040	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Own	2 R	41.8	L4IH	394	168	5550	34x5P	34x5DP
Relay 40 CB	2	3290	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Own	2 R	41.8	L4IH	394	168	5750	36x6P	36x6DP
Relay Series 50	2	3860	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	5	Own	2 R	58.5	L4IH	584	161	6800	36x6	36x6D
Relay Series S 11	2	2030	Bud	L	6	3⅜x4½	241.6	27.3	53@2200	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	4	Own	2 R	30.0	L4IH	297	162	4700	32x6P	32x6DP
Relay 40 CC	2½	3325	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	4	Own	2 R	41.8	L4IH	394	168	5950	36x6P	36x6DP
Relay Series 50	2½	4000	Bud	L	6	3¾x5	331.0	33.7	64@2100	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	5	Own	2 R	58.5	L4IH	584	161	7000	36x6	38x7D
Relay Series 60	2½	4555	Bud	L	6	4⅛x5⅛	410.9	40.8	83@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Own	2 R	58.5	L4IH	584	175	7350	36x6	36x6D
Relay Series 50	2	4130	Bud	L	6	3¾x5	330.0	33.7	64@2100	G	Long	Br-L	Blo	Han	Zen	Vac	Aut	Br-L	5	Own	2 R	58.5	L4IH	584	161	7200	36x6	40x8D
Relay Series 60	3	4595	Bud	L	6	4⅛x5⅛	410.9	40.8	83@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Own	2 R	58.5	L4IH	584	175	7500	36x6	38x7D
Relay Series 60	3½	4745	Bud	L	6	4⅛x5⅛	410.9	40.8	83@2100	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Own	2 R	58.5	L4IH	584	175	7800	38x7	40x8D
Relay Series 100	5	6615	Con	L	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Ful	Blo	Han	Str	Vac	Aut	Br.L	12	Own	2 R	58.5	4IA	447	230	10000	24x9.00	24x9 00D
Relay 230	5	6750	Her.	L	6	4¾x5¾	611.0	54.0	126@2000	G	Mod	Long	Spic	Ross,	Zen	P	Aut	Ful	5	Own	2 R	89.1	L4IHV	529	196	11600	10.50x24B	10.50x24DB
*Relay Series 60 SW	7½	6545	Bud	L	6	4½x5½	411.0	40.8	100@2200	G	Long	Ful	Blo	Han	Zen	Vac	Aut	Ful	5	Own	2 R	63.6	L4IH	—	175	12000	38x7P	40x8DP
Relay Series 100 B	7½	6900	Bud	L	6	4¾x6	638.0	54.1	118@1850	G	Mod	Br-L	Blo	Han	Zen	P	Aut	Br-L	4	Own	2 R	49.7	L4IH	480	220	11200	24x9.75	24x9 75D
Relay 240	7½	7900	Her.	L	6	5¼x6	779.0	66.1	162@2000	G	Mod	Long	Spic	Ross	Zen	P	Aut	Br.L	12	Own	2 R	93.1	CR4IA	637	174	12000	12.00x24B	12.00x24DB
Reo 1 A	1½	625	Own	L	4	3⅛x4½	205.0	23.3	51@2500	G	Per	Long	Cle	Ross	Sch	P	DR	Own	4	Cla	Sp	37.1	L4IH	230	136	*3135	20x6.00	32x6
Reo 1 B	1½	725	Own	L	4	3⅜x4	214.7	27.3	61@3000	G	Per	Long	Cle	Ross	Sch	P	DR	Own	4	Cla	Sp	33.6	L4IH	230	136	3175	20x6.00	32x6
Reo 1 C	1½	665	Own	L	4	3⅛x4½	205.0	23.3	51@2500	G	Per	Long	Cle	Ross	Sch	P	DR	Own	4	Cla	Sp	37.1	L4IH	230	160	3225	20x6.00	32x6
Reo 1 D	1½	765	Own	L	6	3⅜x4	214.7	27.3	61@3000	G	Per	Long	Cle	Ross	Sch	P	DR	Own	4	Cla	Sp	37.1	L4IH	230	160	3265	20x6.00	32x6
Reo D F X	1½	1095	Own	L	6	3⅜x5	268.3	27.3	85@3200	C	Own	Long	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	34.1	L4IH	289	135	3200	20x6.00	20x6.00
Reo F A X	2	1295	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	Own	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	34.3	L4IH	289	137	3525	20x6.00	32x6
Reo F E X	2	1395	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	Own	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	34.3	L4IH	289	152	3200	20x6.00	32x6
Reo F F X	2	1395	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	Own	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	34.3	L4IH	289	156	3525	20x6.00	32x6
Reo F H X	2½	1595	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	37.7	L4IH	289	142	3750	32x6	32x6D
Reo F C X	2½	1645	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	37.7	L4IH	289	152	4165	32x6	32x6D
Reo F D X	2½	1745	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	37.7	L4IH	289	168	4075	32x6	32x6D
Reo G A	3	2035	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	40.5	L4IH	344	163	4625	32x6	32x6D
Reo G C	3	2140	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	40.5	L4IH	344	179	4850	32x6	32x6D
Reo G D	3	2085	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	78.1	L4IH	344	144	4650	32x6	32x6D
Reo G C S	3	2375	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	40.5	L4IH	344	210	5300	32x6	32x6D
Reo 4-H	4	2800	Own	L	6	4⅛x4¾	381.0	40.8	101@2600	G	McC	Long	Cle	Ross	Sch	P	DR	Own	4	Cla	Sp	42.4	L4IHV	390	150	6150	8.25x20	9.00x20B
Reo 4-J	4	2875	Own	L	6	4⅛x4¾	381.0	40.8	101@2600	G	McC	Long	Cle	Ross	Sch	P	DR	Own	4	Cla	Sp	42.4	L4IHV	390	170	6280	8.25x20	9.00x20B
Reo 4-K	4	2950	Own	L	6	4⅛x4¾	381.0	40.8	101@2600	G	McC	Long	Cle	Ross	Sch	P	DR	Own	4	Cla	Sp	42.4	L4IHV	390	190	6395	8.25x20	9.00x20B
Sterling FB-30	1½	795	Con	L	6	3⅜x4	214.7	28.0	72@3300	C	Per	Borg	Spic	Ross	Zen	P	DR	War	4	Tim	St	37.6	L4IH	269	142	3300	20x6.50B	20x6.50B
Sterling FB-45	2	1485	Con	L	6	3⅜x4⅝	248.0	28.0	66@3000	C	Per	Borg	Spic	Ross	Zen	P	DR	War	4	Cla	St	36.2	L4IH	228	159	4230	20x6.50B	20x6.50DB
Sterling FB-55	2-2½	1850	Con	L	6	3⅜x4⅝	248.0	28.0	66@3000	C	Per	Br-L	Spic	Ross	Zen	P	DR	Br-L	4	Tim	St	36.3	L4IHV	282	159	4950	20x7.00B	20x7.00DB
Sterling FB-80	3	3080	Wak	L	6	3¾x4¾	315.0	33.7	72@2500	G	Mod	Own	Spic	Han	Zen	P	DR	Own	4	Tim	St	49.5	L4IHV	392	174	6480	20x8.25B	20x8.25DB
Sterling FD-80	3	3275	Wak	L	6	4 x4¾	358.0	38.4	80@2500	G	Mod	Own	Spic	Han	Zen	P	DR	Own	5	Wis	2R	55.7	L4IHV	396	174	6680	20x8.25B	20x8.25DB
Sterling F C 100	3½	4950	Wau	L	6	4⅛x4¾	381.0	40.8	85@2500	G	Mod	Own	Spic	Ross	Zen	P	DR	Own	4	Own	—	61.2	O2IMV	576	192	7750	36x8P	36x8DP
Sterling FC 90	4	4200	Wak	L	6	4⅛x4¾	381.0	40.8	85@2500	G	Mod	Own	Spic	Han	Zen	P	DR	Own	4	Own	—	56.3	O2IMV	466	174	7480	20x9.00B	20x9.00DB
Sterling FC-120	4-5	5350	Wak	L	6	4⅛x4¾	381.0	40.8	85@2500	G	Mod	Own	Spic	Ross	Zen	P	DR	Own	4	Own	—	62.2	O2IMV	500	192	8550	40x8P	40x8DP
Sterling FC-135	5	5825	Wak	L	6	4⅝x5⅛	462.0	45.9	102@2400	G	Mod	Own	Spic	Ross	Zen	P	DR	Own	4	Own	—	62.2	O2IMV	500	192	8900	40x8P	40x8DP
*Sterling F C S 170	—	10210	Wau	L	6	4¼x5¾	489.0	43.4	90@2000	G	Mod	Own	Spic	Ross	Zen	P	DR	Own	4	Own	—	63.2	WS4IA	792	—	14100	36x8P	36x8DP
*Sterling F C S 180	—	10405	Wau	L	6	4½x5¾	549.0	48.6	99@2000	G	Mod	Own	Spic	Ross	Zen	P	DR	Own	4	Own	—	59.6	WS4IA	792	—	14550	40x8P	40x8DP
*Eterling F C S 210	—	10825	Wau	L	6	5 x5¾	677.0	60.0	125@2000	G	Mod	Own	Spic	Ross	Zen	P	DR	Own	4	Own	—	59.6	WS4IA	792	—	14750	40x8P	40x8D
Stewart 30	1	695	Lyc	L	4	3¾x4½	199.0	22.5	50@2600	G	Fed	Borg	Spic	Ross	Str	P	DR	W-G	4	Sal	Sp	35.1	B4IM	—	130	*3158	20x6.50	20x6.50
Stewart 30 X	1	795	Lyc	L	6	3 x4¾	201.5	23.8	60@2800	G	Fed	Borg	Spic	Ross	Str	P	DR	W-G	4	Sal	Sp	35.1	B4IM	—	130	3199	20x6.50	20x6 50
Stewart 40 X A	1½	995	Lyc	L	6	3¼x4½	224.0	25.3	62@2600	G	Fed	Borg	Spic	Ross	Zen	P	DR	W-G	4	Sal	Sp	35.1	B4IM	—	145	3574	20x6.50	20x6.50D
Stewart 50X	2	1195	Lyc	L	6	3⅜x4½	242.0	27.3	65@2800	G	Fed	Borg	Spic	Ross	Zen	P	DR	W-G	4	Cla	Sp	35.1	B4IM	—	145	4165	20x6.50	20x6.50DB
Stewart 29 X S	2	1695	Lyc	L	6	3¾x4½	298.0	33.7	85@2750	G	Own	Ful	Spic	Ross	Str	P	DR	Ful	4	Cla	Sp	44.1	B4IM	—	145	5194	20x7.00	20x7.00D
Stewart 32 X	2½	1990	Lyc	L	6	3¾x4½	298.0	33.7	85@2750	G	Mod	Ful	Spic	Ross	Str	P	DR	Ful	4	Cla	Sp	46.1	B4IM	—	165	6552	20x7.00	20x7.00D
Stewart 58-8	2½	2390	Lyc	L	8	3⅜x4½	322.0	36.5	100@2800	G	Fed	Ful	Spic	Ross	Str	P	DR	Ful	4	Cla	Sp	46.1	B4IM	—	170	6170	20x7.50	20x7.50DB
*Stewart 18 X	2½	2690	Lyc	L	6	3⅞x5	310.0	36	85@2750	G	Own	Ful	Spic	Ross	Str	P	DR	Ful	4	Tim	Wo	48.1	B4IM	—	165	6245	20x7.50	20x7.50D
Stewart 36 X	3	2990	Lyc	L	6	3⅞x5	354.0	36.2	90@2750	G	Fed	Borg	Spic	Ross	Str	P	DR	Br-L	4	Tim	Wo	105.1	B4IM	—	165	6254	20x8.25	20x8 25D
Stewart 48-8	3	2990	Lyc	L	8	3¾x4¾	420.0	45.0	130@2800	G	Fed	Br-L	Spic	Ross	Str	P	DR	Br-L	4	Cla	Sp	46.1	B4MV	—	170	6750	8.25x20B	8.25x20DB
Stewart 19 X	3½	3690	Lyc	L	6	3⅞x5	354.0	36.2	90@2750	G	Mod	Ful	Spic	Ross	Str	P	DR	Ful	12	Tim	Wo	105.1	B4IM	—	165	7474	20x9.00	20x9.00D
Stewart 38-8	3½	3990	Lyc	L	8	3¾x4¾	462.0	45.0	130@2800	G	Fed	Borg	Spic	Ross	Str	P	DR	Br-L	12	Tim	2R	105.1	B4IMV	—	170	7964	20x9.00	20x9.00D
Stewart 38-8	3½	3990	Wak	L	6	4⅝x5⅛	420.0	45.9	100@2000	G	Fed	Borg	Spic	Ross	Str	P	DR	Br-L	12	Tim	2R	105.1	B4IMV	—	170	7964	20x9.00	20x9.00D
Stewart 31 X	5	5190	Wak	L	6	4⅝x5⅛	516	51.2	105@2000	G	Mod	Br-L	Spic	Ross	Str	P	DR	Br-L	12	Tim	Wo	105.1

Production--Engineering--Factory

Bradley Products Announces Five Luggage Lines for 1932



The Bradley Products Company, Fostoria, O., has announced five lines of baggage-carrying equipment for the present season.

The platform rack has a solid top, and is finished in black enamel, with a chrome molding across the back. The universal rack is of the folding type, and is made to fit every type of car. It attaches to the bumper or bumperettes, and can be installed or removed in a few minutes.

The Vogue rack is also of the folding type, finished in black, with three strips of chrome molding. It is used when a spare tire is carried at the side of the car. The four and five bar Kromrak are both chromium plated with steel, walnut strips. The only difference between these two latter models is that one has four and the other five bars.

U. S. AIR COMPRESSOR ISSUES 1932 CATALOGUE

The United States Air Compressor Company, Cleveland, O., has just issued its catalogue for 1932. This publication not only contains general information, descriptive copy of the complete line, sales and merchandising ideas, but also valuable engineering data. Any one interested in compressors and kindred lines will welcome this new and comprehensive catalogue, which is also designed to be a handbook for the trade.

OBERDORFER BRASS HAS NEW ALUMINUM SOLDER

The M. L. Oberdorfer Brass Company of Syracuse claims to have perfected an aluminum solder that has the flowing characteristics of a high tin solder as well as being highly resistant to corrosion. It is marketing the product under the trade name of "E-Z-FLO" Aluminum Solder.

W. J. Savage Marketing Gray Turret Head Cutter

The W. J. Savage Company, Nashville, Tenn., is announcing a new Gray turret head metal cutter, which permits the operator to cut shapes in sheets or plates of any form without turning the stock through the throat.

In this way a small throat machine can be used, reducing the floor space needed and allowing the cutting of shapes when the sheets are too large to swing through the throat. In turning small pieces, the turret can be locked in eight different positions to facilitate the handling of stock. It is stated that the shapes cut are not distorted and have clean-cut edges that do not need filing.

The machine also has double micrometer adjustable strippers. When duplicating parts by a master template, one of the strippers is adjusted to rest on top of the template, while the other is on the stock, which is on a lower plane than the template. This is designed to prevent stock and template from being picked up more on one side than on the other.

Rest arms are provided on each side of the machine for supporting the stock. These arms can be swung into any desired position, to support the stock and not to get in the way of the operator's movements. A micrometer tightening adjustment is provided for the ram guide bushing to insure accurate alignment of the cutters and die.

These cutters are built in several sizes, appropriate for cutting stock from the thinnest gages up to one-inch plate. This turret head can be converted into a shearing machine for light-gauge metals, up to one-eighth of an inch. A gig mechanism disengages the cutting tool, lifting it high enough over the master template and stock to permit the tool to be entered when making inside cuts.

Detecting a Ten-Millionth Volt With New Vacuum Tube

A vacuum tube a thousand times more sensitive than its predecessors in the measurement of minute voltage was announced by G. F. Metcalf and T. M. Dickinson of the vacuum tube engineering department of the General Electric Company at the recent meeting of the American Physical Society at Cambridge, Mass.

The new "low-noise" vacuum tube, technically designated as the Type PJ-11 Pliotron, differs particularly from the usual tube in the degree of vacuum that has been attained. In the ordinary tube the gas pressure within the tube is of the order of a millionth of an atmosphere; the new tube has been exhausted to a billionth of atmospheric pressure.

The "low noise" tube makes it possible to detect voltages of the order of 1/10,000,000 volt. It has been possible to do this at radio frequencies for some years, but when attempts were made to amplify voltages whose frequencies were less than 1,000 cycles per second, it was found that voltages of less than 1/10,000 volt were masked by large random disturbances. When these disturbances are made audible by a loud speaker they appear as a loud, crackling and hissing noise.

The new tube, reducing this noise between 100 and 1,000-fold, makes it possible to measure accurately voltages as small as one-millionth of a volt, and to detect voltages ten times smaller, at any frequency from zero (direct current) to a million or more cycles per second.

Laboratory investigations show that random disturbances in the usual tube are caused by any or all of such happenings as insulating material in or near the electron path, irregularity of filament emission, gas, positive ions emitted by the filament, and insulating or foreign deposits on grid wires. Having located the causes of the disturbances, the engineers then found means for minimizing them in the "low noise" tube.

Gisholt Has New Line of Universal Tool Grinders

The Gisholt Machine Company, Madison, Wis., has just brought out a new universal tool grinder, which is designed to meet the special conditions found in the grinding of Carboloy and Stellite tools.

The large feed dial is graduated in thousandths of an inch, and these graduations are over ⅛ of an inch apart so that feeds as fine as .0005 may be easily obtained. Grinding wheels may be obtained in any desired grain and hardness from grinding wheel makers. A diamond dresser or one of the disc type may be quickly clamped in the tool holder to dress the wheel squarely.

The design of the tool is claimed to be such that no clamping strains ever are present near the Carboloy tip. Tools are properly positioned with four easy reading dials, divided into a scale, to allow accuracy.

A reversible motor or reversible countershaft is designed to give correct rotation of the grinding wheel away from the cutting edge.

The hardened alloy spindle is carried in two large adjustable bearings, protected against abrasive dust. The wheel guard is designed to permit direct connection to an overhead dust-collection system, for use when dry grinding high-speed steel. A low-pressure pump delivers several gallons of coolant to the tool per minute to keep it cool at all times. The pump is reversible. The wheel mount is designed to assure quick removal and replacement of different grades of wheels for grinding different materials.

Major Specifications and Mechanical Details of 1932 Commercial Cars

LEADING MAKES NATIONALLY DISTRIBUTED

(CONTINUED FROM PAGE 7)

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Make Transmission	No. Spds. For.	Rear Axle Make	Type	Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brakes	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Rear
Willys-Overland 6-C-113	½	415	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Own	Spic	Own	Til	P	Aut	Own	3	Own	Sp		12.4	B4IM	143	113	1925	20x5.50	32x6
Willys-Overland 6-C-131	1½	595	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Own	Spic	Own	Til	P	Aut	W-G	4	Cla	Sp		40.8	B4IM	235	131	2625	20x5.50	32x6
WillysOverland 6-C-157	1½	635	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Own	Spic	Own	Til	P	Aut	W G	4	Cla	Sp		40.8	B4IM	235	157	2900	19x5.00	19.x5.00
E 2 S W	12,500		X	8	D	R	30,000																						
D 2 D	12,500		X	8	R		30,000																						
2 E D	12,500		X	8	R	D	R... 30,000																						
T 10 B	18,000																												
T 10 W	18,000																												
T 10 D R	18,000																												
U 6 D R	21,000																												
A 6 S W	18,500																												
C 7	24,000																												
C 7 W	24,000																												
C 8	24,000																												
C 8 W	24,000																												
X 8	30,000																												

GENERAL NOTATIONS

*†**REFERENCE MARKS** apply to individual lines only and explanations are given under the subdivision for each company in the "SPECIAL NOTATIONS."

CAPACITIES given in this table are in tons or fractions of tons. *Shows maximum allowable gross weight in pounds.

ENGINE—Bud, Buda; Con, Continental; Her, Hercules; Lyc, Lycoming; Pont, Pontiac; Wak, Waukesha; Wis, Wisconsin; Hall, American Car & Foundry.

VALVE ARRANGEMENT—L, "L" head; H, in head; O, overhead; S, sleeve.

TYPE OF CAMSHAFT DRIVE—G, gear; C, chain.

RADIATOR MAKE—G&O, G & O Mfg. Co.; Fel, Fulton Corp.; Long, Long Mfg. Co.; Har, Harrison Radiator Corp.; Fed, Fedders Mfg. Co.; McC, McCord Radiator & Mfg. Co.; Mod, Modine Mfg. Co.; Hex, Hexcel Radiator Co.

CLUTCH MAKE—Jon, Jones Clutch & Gear Co.; Ful, Fuller & Sons Mfg. Co.; Borg, Borg & Beck Co.; Br-L, Brown Lipe Gear Co.; Rock, Rockford Drill & Machine Co.; Cov, Covert Gear Co.; Long, Long Mfg. Co.; Detr, Detroit Gear & Machine Co.; Mer, Merchant & Evans; Hel, Merchants & Evans.

UNIVERSALS MAKE — Spic, Spicer Mfg. Co.; Blo, Blood Bros. Machine Co.; Sup, Superior Universal Products; Un, Universal Products Co.; Cle, Cleveland Steel Products Corp.; Pet, Peters; Opt, optional; Mec, Mechanics Machine Co.

STEERING GEAR MAKE—Ross, Ross Gear & Tool Co.; Han, Hannum Mfg. Co.; Sag, Saginaw Steering Gear Co.; Gem, Gemmer Mfg. Co.; Col, Columbus Gear & Pump Co.; W-G, Warner Gear Corp.

CARBURETOR—Car, Carter; Mar, Marvel; Sch, Wheeler-Schebler; Str, Stromberg; DL, Detoit Lubricator; Til, Tillotson; Zen, Zenith-Detroit.

FUEL FEED—Gra, gravity; Vac, vacuum tank, P, fuel pump.

ELECTRICAL SYSTEM — AB, American-Bosch; Aut, Electric Auto-Lite; Eis, Eisemann; L-N, Leece-Neville; NE, North East; RB, Robert Bosch; DR, Delco-Remy.

TRANSMISSION—Br-L, Brown-Lipe; Cov, Covert; Ful, Fuller; Mec, Mechanics Machine; Mun, Muncie; W-G, Warner Gear; Cot, Cotta Gear Co.; Cla, Clark Equipment Co.

REAR AXLE—Cla, Clark Equipment; Col, Columbia; Eat, Eaton; Pont, Pontiac; Sal, Salisbury; Tim, Timken; Wis, Wisconsin.

FINAL DRIVE—IG, internal gear; St, straight bevel; Sp, spiral bevel; Wo, worm; 2R, double reduction; Ch, chain; S-T, semi-transverse.

TYPE OF SERVICE BRAKES—

B4IM, Bendix, 4 wheel, internal mechanical; B4MV, Bendix, 4 wheel, mechanical, vacuum; B6IA, Bendix, 6 wheel, internal, air; B4IMV, Bendix, 4 wheel, internal, mechanical, vacuum; BO4IMV, Bendix, own, 4 wheel, internal, mechanical, vacuum; BrIA, Bendix, operating on 4 rear wheels, internal air; BW4IM, Bendix front; Wisconsin rear, 4 wheel, internal, mechanical; BE4IM, Bendix front, Eaton rear, 4 wheel, internal, mechanical; B4IH, Bendix, 4 wheel, internal, hydraulic.

CB4IM, Columbia, Bendix, 4 wheel, internal, mechanical; C4IM, Columbia, 4 wheel, internal, mechanical; K2IM, Clark, 2 wheel, internal, mechanical; CR4IA, Christensen-Relay, 4 wheel internal, air.

L4IHVA, Lockheed, 4 wheel, internal, hydraulic, vacuum, air; LO4ID, Lockheed, own, 4 wheel, internal, drive shaft; LO4IV, Lockheed, own, 4 wheel, internal, vacuum; LT4DV, Lockheed, Timken, 4 wheel, drive shaft, vacuum; L4IH, Lockheed, 4 wheel, internal, hydraulic; L4IHA, Lockheed, 4 wheel, internal, hydraulic, air; L4IHV, Lockheed, 4 wheel, internal, hydraulic, vacuum; LT4IHV, Lockheed, Timken, 4 wheel, internal, hydraulic, vacuum; LT4IVA, Lockheed, Timken, 4 wheel, internal, vacuum, air; L6IHV, Lockheed, 6 wheel, internal, hydraulic, vacuum; L6IH, Lockheed, 6 wheel, internal, hydraulic.

O2IM, Own, 2 wheel, internal, mechanical; O2IV, Own, 2 wheel, internal, vacuum; O4IA, Own, 4 wheel, internal, air; O4IH, Own, 4 wheel, internal, hydraulic; O4IHV, Own, 4 wheel internal, hydraulic, vacuum; O4IM, Own, 4 wheel, internal, mechanical; O4IV, Own, 4 wheel, internal, vacuum; O4M, Own, 4 wheel, mechanical; O2XM, Own, 2 wheel, external, mechanical; O4XM, Own, 4 wheel external, mechanical; O6IA, Own, 6 wheel, internal, air; OJXM, Own, jack shaft, external, mechanical; OL4IHV, Own, Lockheed, 4 wheel, internal, hydraulic, vacuum; OPX, Own, propeller shaft, external; OPXM, Own, propeller shaft, external, mechanical; OPM, Own, propeller shaft, mechanical; ORIV, Own, rear wheels, internal, vacuum; OTIHV, Own, Timken, internal, hydraulic, vacuum.

S4IM, Steeldraulic, 4 wheel, internal, mechanical.

T4rIA, Timken, operating on 4 rear wheels, internal, air; T4IA, Timken, 4 wheel, internal, air; T6IA, Timken, 6 wheel, internal, air; T2IMV, Timken, 2 wheel, internal, mechanical, vacuum.

W4I, Westinghouse, 4 wheel, internal; W4IA, Westinghouse, 4 wheel, internal, air; W6IA, Westinghouse, 6 wheel, internal, air; 4IA, 4 wheel, internal, air; 4IH, 4 wheel, internal, hydraulic; 4M, 4 wheel, mechanical.

WHEEL BASES given are standard, but optional wheel bases are available in many cases.

***CHASSIS WEIGHT** according to Automotive Daily News formula, which is the chassis with gas, oil, water and spare tire, but without cab or other equipment

TIRES—B, balloon; D, dual; S, solid; P, pneumatic.

SPECIAL NOTATIONS

AMERICAN-LA FRANCE

Balloon tires optional Big Chief models.

AUTOCAR

†Engines in these models are located under the driver's seat.

*Six-wheeler.

BROCKWAY

*Models equipped with twin ignition.

CHEVROLET

Utility model availale on 131-inch wheel base with chassis weight of 2,760 pounds and equipped with dual rear wheels.

DIAMOND T

*Six-wheelers.

Additional standard wheel bases available as follows:—

551	158	750	167, 192
504	166½	801	180½, 199¼
506	174	1200	174½, 180
603	157, 179	1600	174½, 180
606	177½	1601	184

DODGE

*Models F40, F41, F61 and F62 can be had with double drop frame.

FEDERAL

*Six-wheelers.

*Also rated in pounds of total allowable weight as follows:

D 3	8500	T 10 W	18,000
E 3	8,500	T 10 D R	18,000
F 7	10,000	U 6	21,000
F 8	11,500	U 6 D R	21,000
A 6	13,500	A 6 S W	18,500
A 6 T	15,000	C 7	24,000
A 6 T W	15,000	C 7 W	24,000
T 3 W	14,000	C 8	24,000
T 8 W F	15,000	C 8 W	24,000
D 2 S W	12,500	X 8	30,000

GENERAL MOTORS TRUCK

*Capacity indicated is the Shraight Rating (combined weight of chassis body, equipment and pay load) for which each chassis is designed and guaranteed to satisfactorily operate under average conditions. The size of the tires used does not affect this Straight Rating, but to secure maximum tire mileage it is suggested that the total gross weight be limited to a "recommended gross weight" for each tire equipment based on tire capacity. Prices cover base chassis and vary with wheel base and tire combinations. The number of wheel base lengths, tire types, range of "recommended gross weights" and resulting pay load range (assuming nominal body allowance) for each model follows:—

Note: Models T-15 to T-61, inclusive, as well as models TX and WX, are available for export only as coach chassis.

GRAMM

Series	Straight Rating	Wheel Base	Pay Load Range
AX 4	8,000	157	1 to 1½ tons
BX 4	10,000	157	1½ to 2 tons
CX 4	12,000	157-180	2 to 3 tons
CX 6	12,000	157-180	2 to 3 tons
B	12,000	157-174	1¾ to 2½ tons
D	17,000	145-196	2½ to 4 tons
EY	.....	.....	3 to 4 tons
GY	.....	.....	4 to 5 tons
HY	.....	.....	5 to 6½ tons

†Both the four and six cylinder are also offered in 157-inch wheel ase at $1,145 and $1,345, respectively.

Model	Wheel Bases	Tire Types	Range of "Rec. Gross Weights"	Pay Load Range
T-11	1	1	3800	½
T-15	3	10	4500- 6500	½-1½
T-18	..	..	7500- 8200	1½-2
T-19	..	..	6800-10000	1½-2½
T-25	3	17	6800- 9000	1½-2
T-26	4	..	8500-11000	2-3
T-30	3	15	10000-12500	2-3
T-31	4	..	11000-14000	2½-4
TX 186½	1	..	14000	
WX 185	1	..	14500	
T-42	4	12	12000-15000	2½-4
T-44	4	12	12000-16000	3-4½
T-45	4	..	13500-16000	3-4½
WX 215	1	..	17000	
T-51	4	..	16500-19000	4-5½
T-55	4	..	16500-19000	4-5½
T-60	4	18	18500-22000	5-6½
T-61	4	..	19500-22000	5-6½
T-82	4	12	19000-24000	5-7
T-83	4	..	20000-24000	5-7
T-85	3	..	25000-30000	6-8
T-90	3	7	22000-28000	5-7½
T-95	3	..	30000-40000	7-11
T-96	3	..	28000-34000	7-9

†Models T-90, T-95 and T-96 are six-wheelers, the latter having one driven and one trailing axle. Optional rear axle gear ratios available for all models, except Model T-18. Double reduction axles available for Models T-60, T-61, T-82 and T-83.

INDIANA

*Six-wheelers.

INTERNATIONAL

*Stromberg carburetor optional.

MACK

Other wheel bases furnished on all truck models.

On 6-wheel jobs 4 rear wheels driven by chains, foot brake on 4 rear wheels.

††Made also in tractor models.

PIERCE-ARROW

*Optional final drive on Models PW, PX, PY and PZ.

REO

Models DF, FA, FE and FF are available with dual wheels at additional cost.

*Model DF X can be had with 3 speed transmission and single tires for $895.

STERLING

*Six wheelers.

STEWART

Models 30 and 30X can also be supplied in 120, 140 and 160-inch wheel base.

Models 40XA can also be supplied in 134, 145, 160 and 176-inch wheel base.

Model 29XS can be supplied in 135, 160, 176 and 190-inch wheel base.

*Models 18X, 32X and 36X can be supplied in 148, 190 and 220-inch wheel base.

*Models 19X, 31X and 27XS can be supplied in 148, 172, 190, 220 and 235-inch wheel base.

As optional equipment Models 18X, 19X, 36X, 31X and 27XS can be supplied with Timken dual reduction rear axle.

Models 38-8, 38-6, 48-8 and 58-8 can be supplied in 160, 170, 180, 196, 226 and 241-inch wheel base and worm axle.

WHITE

*Six-wheelers.

**Price on Model 60K includes body.